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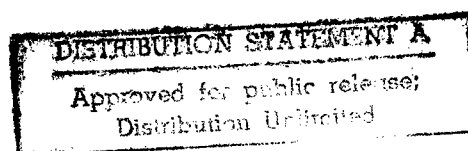
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# USSR Report

MILITARY AFFAIRS



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5 March 1985

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MILITARY-POLITICAL ISSUES

TRAINING ARTICLE: BUBLIK ON PATRIOTISM, INTERNATIONALISM

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 20, Oct 84 pp 14-24

[Article: by Col L. Bublik, doctor of historical sciences, professor: "The Development of Patriots, Internationalists"]

[Text] Patriotism and internationalism--these excellent feelings and features of political awareness, are shaped in the fightingmen, as they are shaped in all the people, under the influence of the socialist order which has developed in our nation, of the Soviet way of life, on the solid social and economic foundation of the society of mature socialism. They are developed and perfected in the multinational military collectives in the process of active and purposeful ideological and mass political work performed by commanders, political organs, party and Komsomol organizations, in the course of the combat and political training and the daily military service. Describing the Armed Forces of the USSR in a speech at the All-Army Conference of Secretaries of Komsomol Organizations, Comrade K.U. Chernenko made the following statement: "The Soviet Army is both a school of patriotic maturation and a school which develops real socialist internationalism, and not just as a matter words, but in reality."

The CPSU resolves problems pertaining to patriotic indoctrination from the standpoint of Marxism-Leninism, taking into account the class nature and the specific historical essence of patriotism. Lenin's tenet that patriotism is one of the most profound feelings, strengthened by centuries and millennia of separate homelands, indicates that this phenomenon is a product of historical development.

In order to understand the essence of patriotism, it is important at the outset to understand its place in the overall structure of social awareness. This approach is of great theoretical and practical importance for indoctrinating the workers and fightingmen of the socialist army in a spirit of revolutionary patriotism, for waging an effective struggle against bourgeois ideology, nationalism and chauvinism.

It should be born in mind that patriotism involves both a social psychology and ideology. We know that the psychology precedes the ideology. The sense of patriotism had existed many centuries before the ideology of patriotism came

\*This article is recommended for use in the system of Marxist-Leninist training for officers during the study of the subject: Problems of Patriotic and International Indoctrination of the Fightingmen.

into being. Ideologically, patriotism takes shape only during the bourgeois era, remaining mainly an element of the social psychology prior to that. V.I. Lenin wrote the following: "The patriotic concept traces its origin back to the Great Revolution of the 18th century..." ("Poln. sobr. soch." [Complete Collected Works], Vol. 16, p. 451).

The patriotism which exists at the level of a social psychology has a wealth and a great diversity of feelings and emotions. As a result, the individual develops a specific image of the motherland, a subjective view of the fatherland. In its most general form, the psychology of patriotism includes feelings of love for the working people, the language, traditions and one's native nature, a sense of national pride in the heroic past of the homeland and one's fellow countrymen, in the great contribution made by one's people to world culture and social progress, a sense of sorrow and pain for the enslavement and oppression of the native country by foreign invaders, and other feelings.

The ideology of patriotism has its own specific characteristics. Whereas the broad public masses are the carrier of the patriotic psychology, the thinking members of the advanced class--the proletariat, who have the opportunity to engage in spiritual activity and are capable of expressing its class interests--are the primary expresser of the ideology of patriotism.

The mere existence of patriotic feelings, emotions and ideas is still not patriotism, however. True patriotism is love for the homeland in action, patriotism which transforms and exalts the homeland, not just as a matter of words, but in reality. The operative aspect of patriotism is the crucial factor, since the transformation of feelings and ideas into physical assets occurs precisely at this stage. This aspect is growing immeasurably in the modern era of rapid political, social and economic reform, an era of extraordinarily intensified ideological struggle between opposite social systems. The effectiveness of patriotism and the need to combine patriotic indoctrination with the mobilization of the Soviet people for the practical implementation of plans for the building of communism are brought to our attention in documents from the 26th Party Congress and subsequent Plenums of the CPSU Central Committee. Comrade K.U. Chernenko made the following statement at the June 1983 Plenum of our party's Central Committee: "Being a patriot today means working tirelessly to build up our homeland's economic strength and its defense capability, improving one's preparedness to defend peace against all encroachments by the imperialist aggressor, and conscientiously performing one's military duties."

Patriotism can therefore be defined in the following manner. Patriotism is a reflection of the existence of separate homelands in the public and individual awareness; it is profound feelings and thoughts of devotion to the homeland and the selfless fulfillment of one's duty to it--to struggle for its progressive development, its grandeur and glory, its defense against enemies--on the practical level.

The essence of patriotism at a specific historical stage and its social role are organically combined in that social system which produces it. In an exploitative society, where social and national oppression reign, patriotism is contradictory, divided and limited. The workers' love for the homeland merges with hatred for the oppressors. Under capitalism, the working class is deprived

of the means of production and does not have access to many of the benefits produced by its own labor. This is why K. Marx and F. Engels wrote that the workers do not have a homeland under capitalism.

The inseparable unity of feelings of love for one's native country and also for the social customs which exist in it emerges in the workers only after a victorious socialist revolution. This is the unity of feelings which was achieved as a result of the Great October victory, which give birth to a new and higher type of patriotism, socialist patriotism. October brought a merging of Homeland, Revolution and Socialism in the awareness of the workers.

The courageous and heroic struggle waged by the working class and the peasantry for their socialist homeland during the years of civil war and foreign military intervention brought out clearly and convincingly the life-giving force and the efficacy of Soviet socialist patriotism, without which, in the words of V.I. Lenin, "We would not have succeeded in defending the Soviet Republic" ("Poln. sobr. soch.," Vol. 42, p. 124).

Love for the homeland and for the Communist Party was one of the main sources of our Victory over the German fascist invaders during the Great Patriotic War and an extremely important factor behind the mass heroism and selflessness demonstrated by the Soviet people at the front and in the rear area. "Profound ideological conviction and infinite faith in the correctness of the Leninist cause," the decree passed by the CPSU Central Committee on the 40th anniversary of the Victory states, "served as the inexhaustible source of the Soviet people's spiritual strength and their moral and political solidarity."

Life-giving socialist patriotism is still the basis of all the outstanding economic, social and political successes achieved by the Soviet people in the process of perfecting developed socialism.

The patriotism of Soviet citizens is thoroughly imbued with the concepts of internationalism. They are embodied in specific form in the solidarity of the working class and the communists of all nations in the struggle for common goals, in the support of peoples' efforts to achieve national liberation and social progress, in voluntary cooperation among equal and independent fraternal parties and their organic combining of the national and international interests of the workers in their policy.

Our socialist homeland is the native home of more than a quarter of a billion Soviet people. More than 100 nationalities and ethnic groups live in this home. They have recognized their true interests and united their efforts, and feel that they are the children and the masters of the socialist homeland with full and equal rights. It is a homeland which shows equal concern for each of them, which sincerely respects the dignity of the fraternal peoples, large and small.

As a result of the Communist Party's wise Leninist national policy, the levels of economic and social development of all the Soviet republics have basically been made equal. Modern industry and advanced agriculture have been created, and skilled personnel have been developed in each of them. The economy of each Soviet Union and autonomous republic, oblast or national okrug now forms an inseparable part of a single, All-Union national economic complex, which is being developed by all the peoples in the interest of one and all.

In the USSR a person of any nationality is firmly aware that the economic successes of each Soviet republic are those of his own people as well, because they are merged into a single creative process of increasing the Soviet Nation's national wealth. And it is not surprising that the grand construction projects of socialism and communism--from the Volkhov GES and Dneproges, Turksib and Magnikta to the Krasnoyarsk GES and BAM [Baykal-Amur Main Railroad Line]--are perceived by the Soviet people, no matter where they live, as their own vital affair. Nor is it surprising that Ukrainian or Kuban machine operators hasten to assist the grain growers of Siberia and Kazakhstan after they have harvested their own fields; that oil extraction masters from the North Caucasus and Azerbaijan consider it a matter of honor to develop the oil wealth of Western Siberia; or that thousands of young men and women from the Union's central oblasts travel to unsettled areas at the appeal of the Komsomol and the call of their heart to build a new city, a new plant, a new electric power plant, or to build a main transportation line in areas in which only the paths of hunters existed until only recently. Finally, it is not surprising that we accept works of literature and art, all of the cultural achievements of the Soviet peoples, not just as national achievements, but as common Soviet achievements. A Russian loves the stories of Chingiz Aytmatov as passionately as the Kirghiz loves the novels of Mikhial Sholokhov. The Ukrainian admires the philosophical poetry of Eduardas Mezheylaitis, just as the Lithuanian admires the dramas of Aleksandr Korneychuk. The multicolored and emotionally replete canvases of Martiros Sar'yan and the prose of Yuriy Rytkheu with its youthful maturity and its adult dignity are near and comprehensible to all of us.... The works of our writers, poets and artists reflect not only specific national features, but also a common Soviet, socialist essence.

"Helping the party to indoctrinate the people in the spirit of communism and to develop truly Soviet character," Comrade K.U. Chernenko underscored in his speech at the anniversary plenum of the Board of the Writers' Union of the USSR on 25 September 1984." Our literature and art have done a great deal to reveal the nature of that character, to create authentic, vigorous models of people selflessly devoted to the nation and to socialism, and embodying the heroic spirit involved in the building of a new world."

The party has achieved internationalism's transformation from the ideal of a handful of communists into profound convictions and the standard of conduct of millions and millions of Soviet people of all nationalities and ethnic groups. This has truly been a revolutionary change in the public awareness, the importance of which it would be difficult to exaggerate. The emergence of a socialist community of people has resulted in the common national pride of Soviet man. It is a broad feeling of extremely rich substance. This feeling has absorbed all of the best things produced by the labor, the heroism and the creative genius of millions of builders of the new society.

The national feelings and national dignity of every individual are respected in our nation. The CPSU has combatted and will always combat such phenomena as chauvinism or nationalism, which are alien to the nature of socialism, and all nationalistic deviations and trends aimed at artificially erasing national characteristics. The party considers it equally unacceptable to artificially stir up the latter, however.



"A well-conceived, scientifically based national policy," it was noted at the June 1983 Plenum of the CPSU Central Committee, "is an inseparable part of the party's work to perfect developed socialism. And the key to its success is the indoctrination of the workers in the spirit of proletarian internationalism.... It is important also to promptly detect and skillfully resolve problems and conflicts arising in this area. In short, the internationalist indoctrination should be conducted extensively, persistently and earnestly.... Real party principle needs to be skillfully combined with highly subtle delicacy."

The Soviet people's internationalism is graphically demonstrated not just within the nation, but also abroad. The peoples of Europe and of the entire world owe their deliverance from the brown plague of fascism to the Soviet people. It is a known fact that we lost 20 million people during World War II, not only defending our homeland, but also liberating many enslaved nations from the fascist yoke. No one can erase from the memory of mankind the assistance which the Soviet people provided the Spanish Republicans and the Chinese workers in their struggle for national and social liberation, the Korean and Vietnamese peoples, subjected to imperialist aggression, and the Arab nations in their struggle against Israeli expansionism and its abettors. Today, the Soviet Union is providing international assistance to the Democratic Republic of Afghanistan in the defense of its revolutionary gains.

The Soviet people are guided by the great concepts of proletarian, socialist internationalism in their relations with the peoples of nations in the socialist commonwealth, which respond, in turn, with sincere friendship. The fraternal solidarity of the socialist nations increases the economic strength of each of them and of the commonwealth as a whole. The deep organic and constantly growing friendly relations between party and state organs, between the collectives of enterprises and scientific institutions, between public organizations and between millions and millions of citizens permit us to speak of a fundamentally new phenomenon, a real fraternal alliance of peoples welded together by a unity of convictions and common goals.

Our people have always been solidly aligned with the struggle of the workers in the capitalist nations against the exploitation and oppression of the monopolies and for their economic and civil rights. They provide effective assistance to the new national states struggling against neocolonialism, struggling to reinforce their independence. Thousands of Soviet specialists are working in those nations, making their contribution to the development of a modern economy there, to the development of education, science, culture and health protection. And our people are warmly mentioned everywhere as people of duty, honor and unselfishness.

The building of a developed socialist society in the USSR has been the Soviet people's consistent fulfillment of their primary international duty to the workers of the entire world. Pioneering the route to a bright communist future, our people are revealing and providing practical substantiation for the laws governing the building of a new society, thereby easing the efforts of peoples just setting out on the path of socialist reforms.

Soviet fightingmen are true patriots and internationalists. Our army has been developed and indoctrinated by the Lenin party as a weapon for defending the

interests of the people and their socialist gains, in a spirit of respect for the workers of all nations and of fraternal assistance in their struggle for freedom, national independence and social progress. The entire heroic history of the Soviet Armed Forces is an example of their selfless fulfillment of their patriotic and international duty.

Since the first days of the creation of the Workers' and Peasants' Red Army, its fighters and commanders have been distinguished by good moral and fighting qualities. The defenders of the cause of October boldly entered into combat with the enemy during the civil war years. Guided by their revolutionary duty, they selflessly defended their own Soviet power. The glorious deeds of the first Cavalry Army, the 24th Samaro-Ul'yanovskaya Iron Division, the 25th Chapayev Division and many heroes of the struggle against enemies of the revolution are alive and will live eternally in the memory of peoples.

Each generation of the homeland's defenders have written their own pages in the fighting chronicle of the Armed Forces. The mass heroism of the Soviet people was manifested especially clearly during the Great Patriotic War. More than 11,000 fightingmen were awarded the great title Hero of the Soviet Union. More than 7 million were awarded orders and medals for distinguishing themselves in combat at the front. The title Hero of the Soviet Union was conferred upon 234 partisans.

Fervent love for the homeland and the Lenin party and devotion to the communist ideals are an extremely important feature of the moral-political makeup of Soviet fightingmen in the contemporary situation. They see their patriotic duty as that of persistently improving their military skill, successfully mastering the most complex military equipment, strengthening military discipline and organization, striving for new successes in the All-Army socialist competition with the slogan, "Be on Guard, in a Constant State of Readiness to Defend the Gains of Socialism!", and successfully carrying out the tasks set for the Armed Forces by the Communist Party in the complex and tense international situation.

The traditions of our Armed Forces are shaped and developed under the influence of the revolutionary, labor and combat achievements of the party and the people, of the life-giving concepts of patriotism. Everything personified by them is near and dear to every Soviet patriot. This is, first of all, selfless devotion to the great cause of communism, love for the socialist homeland and confidence in their abilities, that victory will be achieved over the enemies of the socialist homeland; faithfulness to the military oath and military duty, and mass heroism; love for their unit or ship and loyalty to the unit colors and the ship's flag; friendship, military comradeship, respect for the commander and protection of the commander in combat; a constant striving to perfect one's military skill and one's military and political knowledge, and to strengthen discipline; and a tireless struggle for a high level of combat readiness in the unit or on the ship. A high level of vigilance with respect to the intrigues of aggressors and relentlessness toward the homeland's enemies are traditional.

The combat fraternity between the Soviet Armed Forces and the armies of fraternal socialist nations is a remarkable tradition. Our army is indoctrinated in a spirit of profound devotion to the concepts of peace and internationalism, to

the concepts of friendship among peoples. This is precisely what distinguishes it from the bourgeois armies. This is precisely why the Soviet people love their army and are proud of it.

Fightermen of the army and navy are faced with even greater international tasks in the contemporary situation. Shoulder to shoulder with the armies of socialist states in the Warsaw Pact, the Armed Forces of the USSR are reliably defending the peaceful labor of peoples in the socialist commonwealth and serving as a real counterforce to imperialism's aggressive forces. Loyal to the traditions of internationalism, Soviet fightingmen are serving in the land of the fraternal peoples of Hungary, the GDR, Poland and Czechoslovakia, and are providing the Afghan people with international assistance in the defense of their gains in the April Revolution.

A profound patriotic awareness is developed in the fightingmen by the entire structure of army life, in the process of the enormous indoctrinational work performed by commanders, political organs, party and Komsomol organizations. The dominant place in this work is assigned to developing in the personnel a Marxist-Leninist outlook, ideological conviction and great political awareness, demonstrated by each fightingman in his understanding of his personal responsibility for the fate of the homeland and in a readiness to defend the gains of socialism with weapon in hand. In the situation of imperialism's growing aggressiveness and intensification of the ideological struggle in the international arena, priority should be given to developing in the fightingmen an acute sense of the increased danger of war, great political vigilance, a burning hatred for our class enemies and a constant readiness to repel imperialist aggression.

The arsenal of forms, methods and means employed in this work is extensive and diverse. Leninist ideas about patriotism and defense of the socialist homeland, the Soviet people's successes in the building of communism and their heroic feats on the fields of past battles are explained to the fightingmen in political classes and political briefings, in lectures and reports, and are depicted in graphic agitation. Evenings of discussion on special subjects, Leninist readings and lessons are conducted in the units and on the ships, and trips are arranged to factories and plants, kolkhozes and sovkhozes, as well as meetings with production innovators and outstanding workers, veterans of the CPSU and the Soviet Armed Forces, and Great Patriotic War veterans--living bearers of the revolutionary, labor and combat traditions, and of our party's extremely abundant experience.

The work performed in many units and formations to set up combat glory nooks, rooms and museums, to locate and correspond with veterans, and to erect obelisks and other monuments to fightingmen who died while combatting our homeland's enemies, helps to develop patriotic feelings in the personnel. The young soldiers take an oath of loyalty to the homeland and are awarded Komsomol cards and military valor badges at sites of combat glory.

A great deal of attention is devoted to developing in the personnel a sense of pride and responsibility for serving in the units and formations with honorary names, in those which have earned the right to the Guards title and those which have been awarded combat orders. At the initiative of the Komsomol members, competition is being launched for the right to perform a specific training task or an exercise for Heroes of the Soviet Union, or to serve in subunits bearing their names.

The practice of presenting the colors to best units and formations which have been formed since the war and do not have a combat history. The awarding of the names of outstanding Communist Party figures and famous military leaders of the Great Patriotic War to units, ships, formations and military educational institutions is also widespread in the army and navy as a means of indoctrinating the fightingmen in a spirit of patriotism.

Extensive use is made of record books of the history of units and ships, and outlines of the combat path they have traveled for publicizing our people's heroic past. The Central Museum of the Armed Forces of the USSR and museums of the history of the districts, fleets and groups of forces perform extensive indoctrinational work. They schedule tours having to do with special subjects, traveling exhibits and meetings with party, war and labor veterans.

The system of military ceremonies--the trooping of the unit colors, the taking of the oath, the presentation of weapons and awards, the mounting and changing of the guard, the beginning of alert duty and other formal acts--contain inexhaustible possibilities for exerting a moral influence upon the fightingmen. Commanders and political workers try to organize them in such a way that they give the personnel a feeling of spiritual uplift, a sense of faithfulness to military duty and a desire to hold high the honor and dignity of the Soviet fightingmen.

Many interesting forms of patriotic indoctrination have come into being in recent time, particularly in connection with preparations for celebrating the 40th anniversary of the Victory: the All-Union search expedition, "Chronicle of the Great Patriotic War," the creation of recording files containing the memoirs of veterans, the All-Union Memorial Watch, and others. Fightingmen participate in the All-Union rally of winners of the youth tour of sites of revolutionary, combat and labor glory, in the creation of a memorial to the Victory, and in various mass activities with the slogan, "Alignment--on the Banner of Victory!".

Diverse forms of mass political work are aimed at indoctrinating the fightingmen in the spirit of socialist internationalism. A significant place in this process is assigned to publicizing the Leninist national policy, the concepts of friendship of peoples of the USSR and the Soviet state's worldwide historical role in the international union of our nation's workers. All of this completely and thoroughly explained to the fightingmen in the system of political classes, in lectures and reports, in group talks and other mass agitation activities. Evening and morning meetings and quizzes on special subjects are conducted in the units and on the ships, and displays on the Union republics are set up. Films are shown and television programs broadcast on friendship of peoples of the USSR and on the contribution made by members of all the nation's nationalities and ethnic groups to the common cause of building communism and protecting the socialist homeland.

The publicizing of the heroic feats performed by fighters and commanders of various nationalities in the struggle against our homeland's enemies during the civil war and the Great Patriotic War helps to indoctrinate the fightingmen in a spirit of friendship and fraternity among peoples of the USSR and to unite the multinational military collectives. Examples of friendship and military comradeship, and mutual assistance among fightingmen representing all the Union

republics in the course of improving their military skill and performing the combat training tasks at the contemporary stage are also extensively publicized.

The feature of the internationalist is the determining feature in the Soviet fightingman's social portrait. It is formed by our entire way of life, by the moral climate in the socialist society. This important feature must be reinforced with purposeful indoctrinational work, however. In the performance of this work, one absolutely must bear in mind the fact that our military collectives are becoming increasingly multinational with each passing year, that the number of servicemen representing the native nationalities of the Central Asian and Transcaucasian republics in them is constantly growing. As a result, it is becoming particularly important to work vigorously to help those fightingmen who do not know the Russian language well to perfect their military skill, since commands, orders and instructions are issued and the entire process of the combat and political training is set up in the Russian language. Organizing the training and indoctrination in this way helps to unite the multinational military collectives and to strengthen friendship and military comradeship among fightingmen of various nationalities, and it ultimately has a positive effect on the combat readiness of the subunits.

The publicizing of the achievements of fraternal nations in the building of socialism and in the strengthening of their defense capability, and the successes achieved by the allied armies in the improvement of their combat readiness is an important form of international indoctrination for the Soviet fightingmen. All of this helps the fightingmen gain a more thorough understanding of the unity of the tasks and goals of our peoples and develops a sense of pride in the common achievements and in the socialist commonwealth's increased prestige in the world. Joint tactical and command-staff exercises and the exchange of know-how in the combat and political training help to strengthen friendship among fightingmen of the fraternal armies.

It is the great destination of the Soviet Armed Forces to defend the cause of the revolution, socialism and peace among peoples. Our fightingmen understand well that it is their patriotic and international duty, together with the fraternal armies of the Warsaw Pact nations, to be always prepared to come to the defense of socialism's great achievements and give any aggressor a devastating rebuff.

From the heights achieved today, we can see in all their grandeur the outstanding achievements and victories gained by the Soviet people, a patriotic and internationalist people. And we are rightly proud of our beautiful homeland, the world's first socialist nation. Loyalty to our international duty lives always in our hearts. Each new generation born in our native land, illuminated by the light of Leninist concepts, swears allegiance to the slogan of the communists: "Workers of all nations, unite!". Patriotism and proletarian, socialist internationalism are inseparable for us Soviet people, for the fightingmen in the Armed Forces. For us this is the primary essence of Marxism, the axiom of the revolution.

The contemporary complex and tense international situation requires that the command and political staff of the army and navy further intensify the work of developing in the servicemen, love for the socialist homeland, loyalty to the concepts of socialist internationalism and a constant readiness to fulfill their duty to defend the gains of socialism.

## Recommendations for the Seminar

The main purpose of the seminar on the subject "The Work Performed by Commanders, Political Workers, Party and Komsomol Organizations to Further Strengthen the Patriotic and International Indoctrination of the Fightingmen" is to help the students become more thoroughly aware of the importance of this problem at the contemporary stage in the life of the Armed Forces, gain a clearer understanding of its substance, comprehend the demands made today of the commanders and political workers, of all officers, with respect to indoctrinating army and navy personnel in a spirit of patriotism and internationalism, and consider ways of further strengthening the multinational military collectives.

The following topics are recommended for discussion in the class on this subject in the Marxist-Lenist training program for officers: 1. The CPSU's Leninist national policy at the stage of developed socialism and urgent questions pertaining to its implementation in the Soviet Armed Forces; 2. The nature of the work performed by commanders, political organs, party and Komsomol organizations to improve the patriotic and international indoctrination of the personnel of units and ships; 3. Ways to unite the multinational military collectives.

The subject for the essay is the following: Patriotism and Internationalism as Features of the Political Awareness of the Socialist Type of Individual.

The discussion of the first topic should begin with the premise that the building of the developed socialist society has been the result of joint heroic efforts by our nation's peoples, that it is clear and convincing proof of the triumph of the Leninist national policy. Mature socialism has opened up a new phase in the development of the economy, in the strengthening of the ideological and political, social and international unity of the Soviet people, in the strengthening of the nation's defense capability. A historically new social and international community of people, the Soviet people, has come into being in the USSR. This community is based on the indivisibility of the historical destinies of the Soviet people, on profound objective changes of both a material and spiritual order, on an inviolable alliance of the working class, the peasantry and the intelligentsia. It is a result of the growing internationalization of economic life, of all public life, a result of the development in our country of socialist nations among which have developed relations of true equality, fraternal assistance and cooperation, respect and mutual trust.

The advances made by our homeland in social and economic progress are permitting the party and the people to accomplish the tasks involved in creating the material and technical base for communism, further enhancing the well-being and culture of the workers, and developing social-class and national relations, tasks of ever increasing scale and complexity. A detailed program for accomplishing these tasks was set forth at the 26th CPSU Congress. "Today, the unity of the Soviet nations is solid as never before," it was stated at the congress. "This does not mean, of course, that all questions in the area of national relations have now been resolved. The development dynamics of a large multinational state such as ours produces numerous problems requiring the party's sensitive attention" ("Materialy XXVI s"yezda KPSS" [26th CPSU Congress Materials], p. 56).

In view of the multinational nature of the republics and the constantly increasing number of citizens of other than the native nationalities in them, questions pertaining to the observance of their rights with respect to proper representation in party and state organs, as well as a correct understanding and satisfaction of their specific needs with respect to language, culture and daily life, among others, are important. This is only natural. After all, national statehood involves not just the indigenous nationality from which the specific republic received its name, but also, in equal degree, the interests of people of other nationalities residing in it. The republic in which the latter reside and work is just as near and dear to them as it is to the indigenous population, of course.

When the essence of the party's national policy during the period of improving developed socialism and its role in the patriotic and international indoctrination of the Soviet people are discussed, it must be pointed out that the Leninists national policy is that unshakeable foundation on which all of the party's work toward the patriotic and international indoctrination of the Soviet people and of fightingmen in the army and navy is structured. The indoctrination of the personnel in a spirit of patriotism and internationalism, in turn, is an absolute requirement for the further strengthening of our society's unity, of fraternal cooperation among the peoples of the USSR.

The instructor might ask the students the following questions: What factors will cause national distinctions to exist longer than class distinctions? How is the interdependence between the Soviet people's patriotism and their internationalism, as political and moral principles, specifically manifested? What are the objective and the subjective factors determining the role and importance of the Soviet people's patriotic and international indoctrination at the stage of developed socialism?

The important role played by the Armed Forces of the USSR in the strengthening of international unity among the peoples of fraternal republics should be stressed. Members of all nationalities defended the great socialist gains with weapon in hand in battles fought for our homeland's freedom and independence. The Great Patriotic War, the decree passed by the CPSU Central Committee on the 40th anniversary of the Victory states, convincingly demonstrated the inviolability of the friendship and fraternity of peoples of the USSR.

Today, worthy heirs to the combat glory of the older generations, the sons of all our nation's nationalities and ethnic groups, are performing their military duty shoulder to shoulder in the combat ranks of the army and navy. They are putting their efforts and their knowledge into the fulfillment of the important tasks assigned them by the party and the people--to guard the peaceful labor of the Soviet people and be a bulwark of universal peace.

It is the sacred patriotic and international duty of members of all nationalities in the USSR to serve in the army and navy. In the military work, the combat traditions develop and grow strong, there is a process of intensive mutual influencing of the common features of culture and daily life, and the international indoctrination of the Soviet fightingmen is actively carried out.

It is important in the classes not just to describe the nature of national relations in various areas of military organizational development and military affairs, but also to attempt to isolate those specific features resulting from the missions of the specific branch of troops, the specific unit or ship, and to analyze the degree to which those specific features are taken into account in the practical work performed by the officers to indoctrinate and train the personnel.

When beginning the discussion of the second topic of the seminar, it should be borne in mind that the main tasks involved in the patriotic and international indoctrination of the Soviet people and of personnel in the Armed Forces are defined in the Program of the CPSU, in decisions coming out of its congresses and plenums of the party Central Committee, in decrees passed by the CPSU Central Committee and in orders and directives issued by the USSR minister of defense and the chief of the Main Political Directorate of the Soviet Army and Navy.

The experience accumulated in the Armed Forces shows that success in the patriotic and international indoctrination depends in great part on how well the commanders, political workers, party and Komsomol activists understand and make correct use of the forms and methods of indoctrinational work, and how well they are able to imbue the military work, the daily existence and spiritual life of the personnel with concepts of friendship and fraternity of peoples of the USSR. The more deeply and solidly these concepts are instilled in the minds of the fightingmen, the higher are the moral-political and psychological qualities of the personnel, the more effective is the political and combat training process, and the more dependable is the preparedness to resolutely defend the homeland and the gains of socialism.

The patriotic and international indoctrination of the fightingmen should be filled with precisely defined class and political substance and should develop into specific and active efforts by the fightingmen to enhance combat readiness and strengthen discipline. It is important for this work to be comprehensive, for it to cover all aspects of spiritual life for the personnel and of the combat and political training, and for it to be based on the tested system of means and forms for exerting an ideological influence: political studies, propagandist and mass agitation measures--lectures, reports and talks, Lenin readings, evening and morning discussions on special subjects, filmed lectures, readers' conferences and so forth. Specific examples and facts should be used to reveal socialism's indisputable advantages over capitalism, the growth of the USSR's international prestige, the grandeur and beauty of the new world and its noble ideals, and the historical truth about our life. At the same time, it is essential to demonstrate what social, national and political antagonisms lie behind the American way of life advertised by bourgeois propaganda, to tell about the millions of unemployed in the capitalist nations, the crisis of the bourgeois culture and imperialism's bloody crimes.

The instructor in the seminar must draw the students' attention to problems pertaining to the international indoctrination of the servicemen and underscore the fact that the Soviet fightingmen's feeling of love for the socialist homeland is merged in his heart with a sense of loyalty to his international duty.



A study of the socialist nations' experience in military-political cooperation will help the students to comprehend the nature, the forms and methods of combat cooperation among armies of the Warsaw Pact nations in the situation of drastic exacerbation of the conflict between the two social system.

When the third topic is discussed, it is essential to stress the fact that the makeup of our Armed Forces reflects the social-political and ideological unity of the Soviet society, friendship of peoples of the USSR, the humane essence of the socialist system and the noble nature of its goals and tasks. Every army and navy collective--from the subunit, unit and ship to the Armed Forces as a whole--is a harmonious combat family in which members of the working class, the peasantry and the Soviet intellegentsia, of all the nationalities and ethnic groups of our great homeland, live and serve.

The performance of the tasks involved in the combat and political training and enhancement of the combat readiness of the units and ships by the multinational military collectives unites servicemen of various nationalities into a single combat family and develops in them a great sense of responsibility for the defense of the multinational Soviet state.

As we improve the combat training of the personnel, Marshall of the Soviet Union D.F. Ustinov, USSR minister of defense, points out, we must concern ourselves not just with achieving good personal preparation for the individual fighter, but also with achieving a high level of combat coordination for the military collectives as a whole--the crew, the team, the subunit, the unit and the ship. The dialectics of the development of our Armed Forces are such that they are increasingly being equipped with team-employed weapons, the use of which requires precisely coordinated, rapid actions on the part of the personnel. Modern military labor is group labor. The combat success of the subunit, the unit and ship is determined by the flexibility of interaction among diverse personnel and equipment, mutual assistance and precise actions on the part of the fightingmen.

All of the essential conditions exist for indoctrinating the Soviet fightingmen in a spirit of collective functioning in the army and navy. These are, first of all, a common interest and common responsibility on the part of all the personnel for strengthening the socialist homeland's defense, and a sense of responsibility on the part of each fightingman for keeping the subunit, the unit and ship at a high level of combat readiness. This joint military labor, which gives a kinship to and unites fightingmen of various nationalities, indoctrinates them in a spirit of military comradeship and mutual assistance, and contributes to their mutual ideological, spiritual and cultural enrichment. Finally, the entire system of training and indoctrinational work and the entire way of life and everyday existence of the multinational army and navy collectives is directed toward this. International indoctrination in the Armed Forces is regarded as one of the main elements in the moral and political preparation of the fightingman, as an important means of shaping the combat qualities essential to the socialist homeland's defender.

Conditions conducive to the intensification of the patriotic and international indoctrination are now being created in connection with preparations for the 40th anniversary of the Soviet people's Victory in the Great Patriotic War. The seminar participants are expected to master all of the forms and methods used in

this indoctrination for purposes of mobilizing fightingmen of the army and navy to increase the combat glory of their units and ships, to assure that they are in a constant state of combat readiness, and to fulfill their sacred duty to the people.

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MILITARY-POLITICAL ISSUES

TRAINING ARTICLE: OBSERVING LEGALITY, MILITARY REGULATIONS

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 20, Oct 84 pp 76-82

[Article by Col K. Pashikin: "Strictly Observe Soviet Laws and Fulfill the Military Oath and Military Regulations"\*)]

[Text] The purpose of classes on this subject is to explain to the students V.I. Lenin's precepts, the Communist Party's instructions and the points contained in the Constitution of the USSR on the strengthening of socialist legality, law and order, and to help the fightingmen comprehend the necessity for strict observance of Soviet laws and for the fulfillment of the military oath, military regulations and orders issued by commanders and chiefs. It is important to use this as the basis for producing in the fightingmen a desire to maintain and strengthen discipline and military order in the subunit and a wholesome moral climate in the military collective.

It is recommended that the class be conducted in the form of narrative and discussion.

A total of 6 hours is allocated for the study of this subject, two of which should be designated for the narrative, two for independent work and two for discussion.

It is essential to discuss the following topics in the narrative: 1. V.I. Lenin, the CPSU and the Constitution of the USSR on the strengthening of socialist legality, law and order; 2. Have a solid knowledge of and undeviatingly fulfill Soviet laws and the demands contained in the military oath and regulations, and strengthen military discipline.

It is essential to point out in a brief introduction that the Communist Party demonstrates constant concern for the strengthening of socialist legality, law and order in the nation, for the legal education of the Soviet people and fightingmen in the army and navy. This is understandable. After all, the strict observance of Soviet laws contributes to the cause of building communism, to the further strengthening of the Soviet state's economic might, to the enhancement of organization and discipline, and to the development of socialist democracy.

\*Material for political classes on the subject: "Strictly Observe Soviet Laws, Strengthen Law and Order, and Irreproachably Fulfill the Military Oath, Military Regulations and the Orders of Commanders and Chiefs."

In the situation of the Soviet Armed Forces, strict observance of the laws and irreproachable fulfillment of the military oath and military regulations are linked in the closest possible way with the further build-up of our state's defensive strength and with the enhancement of vigilance and combat readiness for the troops and naval forces. This is especially important today, when the situation in the world has been drastically exacerbated through the fault of imperialism, particularly American imperialism, and the real threat to our security has increased. Deeply aware of their constitutional duty to defend the socialist homeland, Soviet fightingmen are making every effort to undeviatingly fulfill the demands set by the party's Central Committee and the Soviet government with respect to enhancing vigilance and preparedness to resolutely repel any aggressor.

The absolute fulfillment of socialist legality, law and order, and the irreproachable fulfillment of the demands contained in the military oath and military regulations, and orders issued by commanders and chiefs are an extremely important condition for the achievement of success in the combat and political training by every fightingman, and for the enhancement of combat readiness for the subunits, units and ships.

1. V.I. Lenin, the CPSU and the Constitutions of the USSR on the Strengthening of Socialist Legality, Law and Order

The development of the fundamentals of Soviet law is inseparably linked with V.I. Lenin's name. He defined the scientific bases of socialist legality and its role in socialist development, revealed its essence and the main requirements made of it, and indicated ways to secure and strengthen it.

Vladimir Il'ich considered socialist legality to be the strict and precise observance and fulfillment of the laws by all state bodies, officials and citizens, as one of the most important and unshakable democratic principles underlining the functioning of the state machinery, as an important means of accomplishing the tasks involved in the building of communism. He stressed the fact that the laws express "the will of the classes which have gained victory and hold state power in their hands" ("Poln. sobr. soch." [Complete Collected Works], Vol. 16, p. 306).

The instructor should then underscore the fact that our socialist legality is fundamentally different from bourgeois legality. V.I. Lenin stated that no nation had such a profusion of laws as did czarist Russia, but that nothing like legality existed there, since all of the laws were directed against the working masses. And today, bourgeois legality in the capitalist nations still serves as a tool for protecting the interests of the exploitative classes. "There is no end to laws in the USA, just as there is no beginning of their observance," American writer Mark Twain once remarked. These words, which describes the law in the United States, are still valid today. Many high-sounding statements about "human rights" are made there. Only one thing is missing--real rights and liberties for millions of simple Americans.

Laws which strengthen the bases of socialist social relations have been proclaimed in our nation since the first days of Soviet power. V.I. Lenin personally wrote or edited the most important decrees of Soviet power, made basic

changes in them and additions to them. More than 2,000 legislative acts passed with the leader's direct participation and signed by him created the solid legal foundation of socialist legality. They include historic decrees on peace, on the land and on the nationalization of banks, the Declaration of Rights of Russia's Peoples, the first Constitution of the RSFSR, the Decrees on the Organization of the Workers' and Peasants' Red Army and Red Navy, laws on the creation of people's courts and revolutionary tribunals, and others.

V.I. Lenin substantiated the principle of a common socialist legality. "Legality," he said, "cannot be Kaluga or Kazan legality, but must be a common all-Russian legality, even a common legality for the entire federation of Soviet republics...." ("Poln. sobr. soch.," Vol. 45, p. 198).

Vladimir Il'ich greatly appreciated the importance of socialist law and order and the constructive force of Soviet laws. He considered their function to be primarily that of reflecting, in concentrated form, the people's will and the main directions of party and state policy, and conforming to the principles of communist morality. "As the new power issues laws meeting the aspirations and hopes of the broad popular masses," V.I. Lenin stated, "it is erecting landmarks on the path of development of new ways of life" ("Poln. sobr. soch.," Vol. 35, p. 56).

Strict observance of Soviet laws by all agencies of the young Soviet Republic and by all its citizens was highly important for strengthening the power of the workers and peasants. V.I. Lenin therefore demanded that the decree passed at the 6th All-Russian Extraordinary Congress of Soviets, "On the Precise Observance of the Laws," be made known to all officials and to the nation's population. He appealed to the members of the boards and the people's commissars of all the commissariats in a special letter and reminded them of the absolute need to implement that decree.

Vladimir Il'ich regarded the precise observance of legality as one of the important conditions for victory over the Soviet Republic's enemies. In the well-known "Letter to the Workers and Peasants on the Occasion of the Victory Over Kolchak," he especially underscored the fact that it is essential to sacredly observe the laws and instructions of Soviet power and see that they are observed by all. The leader of the workers warned that the slightest lawless act, the slightest violation of Soviet order, is an opening which the enemies of the workers will immediately exploit ("Poln. sobr. soch.," Vol. 39, p. 156).

It is essential to point out the fact that Vladimir Il'ich himself set a personal example of strict observance of the laws and would not permit the slightest deviation from them. He sharply criticized and resolutely suppressed any attempt to circumvent or ignore the law by anyone whomsoever.

The following is a typical example. L.A. Fotiyeva, secretary of the Council of People's Commissars, asked V.I. Lenin to give the sister of one of the workers in the Council of People's Commissars a job in the Secretariat of the SNK [Council of People's Commissars]. The business manager of the Council of People's Commissars objected, citing the decree: "On the Inadmissibility of Relatives Serving Together in Soviet Institutions." L.A. Fotiyeva wrote the following to

V.I. Lenin: "She is a very valuable worker, and she is the one we want.... Can we not get around the decree?" And although the effort was made in the interest of the common cause, Vladimir Il'ich answered explicitly: "The decrees cannot be circumvented. One can be tried for the mere suggestion" ("Poln. sobr. soch.," Vol. 50, p. 266).

Following Lenin's wise instructions, the Communist Party constantly concerns itself with perfecting socialist legality in the nation.

Experience has shown, however, that it is not enough simply to work out and pass a good law. As the 26th party congress pointed out, we have passed numerous good laws. It is now a matter primarily of observing them precisely and undeviatingly. After all, any law only has life when it is observed, observed universally and by all.

Decisions coming out of the 26th CPSU Congress on improving Soviet law have been further developed in documents of subsequent plenums of the party Central Committee and in decrees of the CPSU Central Committee. The fact should be underscored that the necessity to further strengthen legality is not a result of any sort of extraordinary circumstances but is produced by the complexity of the tasks involved in the building of communism. This was specifically pointed out at the June 1983 Plenum of the CPSU Central Committee, which stated that it is impossible for our social development to proceed normally, without strict observance of laws protecting the society's interests and the rights of citizens. The plenum called for a complete halt to such phenomenon as the use of state or public property, or one's service position for personal enrichment. This is nothing other than the undermining of our system's very nature, the plenum stated. The law must be relentless with respect to this, and its application inevitable.

This idea was uttered with new force at the April 1984 Plenum of the CPSU Central Committee. In his speech at the plenum, Comrade K.U. Chernenko stressed the fact that no one is permitted to violate or to circumvent our laws. It was also pointed out that our laws are truly strict ones. And they must be observed equally strictly. Otherwise, all efforts to strengthen order, organization and socialist legality will be in vain. It is not simply the strictness of a law, but also its fairness--taken in the broadest sense--which are important to us. Fairness in that all are equal before the law, in that our legal standards and our laws are designed to protect the interest of the workers, to develop their labor and public activeness. The plenum set the following tasks: The main thing is for existing laws and new ones to contribute to the flowering of socialist democracy, to the involvement of increasingly broader masses in concerned participation in the management of production, the state and the society.

The Constitution of the USSR has an important role in the strengthening of legality, law and order. Adopted in October of 1977, on the eve of the 60th anniversary of Great October, it embodies the Leninist doctrine on socialist legality and gives it new substance. Socialist legality is proclaimed for the first time in the Constitution of the USSR as one of the main principles underlying the functioning of the Soviet state. Article 4 of the Fundamental Law states: "The Soviet state and all of its agencies function on the basis of socialist legality and assure that law and order, the society's interests and the rights and liberties of the citizens are protected."

Our Fundamental Law requires that all citizens, regardless of their social status or service position, observe the Constitution of the USSR and Soviet laws, respect the rules governing socialist communal living, and carry with dignity the status of a citizen of the USSR (Article 59). It also requires that citizens of the USSR protect the interests of the Soviet state and help to increase its strength and prestige (Article 62).

Since the adoption of the new Constitution of the USSR, the USSR Supreme Soviet alone has passed 25 general laws, 15 laws ratifying state plans for economic and social development and state budgets of the USSR, and the Presidium of the USSR Council of Ministers has issued around 170 ukases of a legal nature. The work of compiling a code of laws of the USSR is close to completion.

Our party devotes a great deal of attention to questions pertaining to the strengthening of public discipline, organization and order, and to the fulfillment by all citizens of their duties to society. "For us, the question of organization and order," Comrade K.U. Chernenko stresses, "is the key and principle question. Any kind of laxity or irresponsibility results in more than just a material loss for society. It also causes serious social and moral damage."

The Law "On the Labor Collectives and on Enhancing Their Role in the Management of Enterprises, Establishments and Organizations" is of great importance among the legislative enactments aimed at further strengthening discipline, organization and order in production, and developing a sense of being the master of the nation in each worker. For the first time in the history of our state, the labor collective is legally proclaimed to be the basic unit of the socialist society, one vested with extensive authority in the nation's political, economic and social life. Speaking of the labor collectives, Comrade K.U. Chernenko stated that they now have extensive, legally established rights. It is a matter of making fuller use of them.

The Soviet fightingman is a citizen of his nation with full rights. "Servicemen and draftees called up for assemblies," states Article 68 of the Law of the USSR on Universal Military Duty, "enjoy all of the social and economic, political and personal rights and liberties, and have all of the duties specified by the Constitution of the USSR for citizens of the USSR."

This provision of the Law is of enormous political and legal significance. It means that Soviet fightingmen drafted to serve in the army or navy are still covered by the general system of legal relations which have developed in our nation. All of the provisions contained in the Constitution of the USSR on the rights and duties of the citizen and on guarantees of his rights and liberties, all of them without exception, apply to servicemen.

How is this manifested specifically? The Soviet fightingman participates in the management of state and public affairs, in the discussion and passage of laws and decisions of general state and local significance. One of the most important proofs that the Soviet fightingman has full civil rights is his right to take part in elections. "Servicemen," states Article 3 of the Law of the Union of Soviet Socialist Republics on Elections to the USSR Supreme Soviet, "enjoy voting rights the same as all citizens."

The Soviet fightingman not only has the right to take part in elections, but may also be elected to any council. We see representatives of the army and navy among the deputies of all Soviets, in other elected state agencies and agencies of people's control. They participate actively in the work of various public organizations.

This cannot be said about the armies of the capitalist states. In Argentina, Brazil, Guatemala, Honduras, Mexico, Uruguay and Ecuador and in a number of states in the USA, for example, soldiers and NCO's do not have electoral rights. Bourgeois ideologists say that this is because the army should be "outside of politics." Practically, however, representatives of the workers and peasants dressed in the soldier's greatcoat do not have the right to vote. They cannot even exercise those reduced rights of theirs which are fixed by law. Most of them, for example, although they have the right to vote, cannot take advantage of this right due to service conditions. American soldiers and sailors do not have the right to be elected to agencies of power in general. All of this demonstrates that the "freedom of political choice" proclaimed by the Constitution of the USA, does not apply to servicemen nor to many other groups of American citizens.

The rights and duties of Soviet fightingmen, like those of all citizens of our state, have been substantially enlarged and enhanced in the Constitution of the USSR adopted in October 1977. It contains for the first time the chapter: "Defending the Socialist Homeland." This reflects the concern of the Communist Party and the Soviet government for the security of our homeland and the Soviet people. Our Constitution states that it is the sacred duty of every citizen of the USSR to defend the socialist homeland and that military service in the Armed Forces of the USSR is the honored duty of Soviet citizens. The constitutional requirements of Soviet fightingmen require that they persistently perfect their military skill and be in a constant state of combat readiness assuring an immediate rebuff for any aggressor.

2. Have a Firm Knowledge of and Fulfill Soviet Laws and the Requirements Contained in the Military Oath and Regulations, and Strengthen Military Discipline

When the second topic is explained, it is essential, first of all, to point out that since the Soviet Armed Forces live a life in common with the people and their organizational development is carried out in the spirit of general Soviet development, the general state tasks involved in strengthening socialist legality apply in full measure also to them. M.V. Frunze stated that the Red Army is an organism which lives and functions on the basis of firm legal principles established by the state.

The specific nature of the military organization, however, the requirements of military discipline, the procedure for performing one's military service, the need to consistently implement the principle of sole command in the army and navy, and other factors necessitate significant specific features of Soviet military law. In view of this, special legislative and other legal acts are issued, which govern military law and order.

The main one of these is the Law of the USSR on Universal Military Service. It reflects the Leninist concepts with respect to protecting the socialist homeland and the policy of the CPSU and the Soviet state in the area of strengthening the



national defense. Under the Constitution of the USSR this law governs all of the most important questions pertaining to Soviet military organizational development and the fulfillment of universal military duty by the citizens. Other documents defining law and order in the army and navy include the Law on Criminal Liability for Military Crimes, the Statute on the Performance of Active, Regular Duty in the Soviet Army and Navy, the military oath, general military regulations and appropriate manuals, instructions and orders issued by the USSR Minister of Defense.

The strict and precise observance of Soviet laws and the demands contained in the oath and the regulations by all fightingmen is an absolute condition for maintaining the troops and naval forces at a high level of combat readiness. Therein lies the guarantee of successful fulfillment of the constitutional duty of the Soviet Armed Forces to the people--to reliably defend the socialist homeland and be in a constant state of combat readiness assuring an immediate rebuff for any aggressor.

The fightingman's zeal in the service, his irreproachable performance and intelligent initiative do not go unnoticed. Commanders and chiefs are granted extensive authority for rewarding soldiers, seamen, sergeants and petty officers who fulfill their military duty in an exemplary manner. At this point, the instructor should read Article 22 of the Disciplinary Code of the Armed Forces of the USSR, which defines the rewards which apply to soldiers, seamen, sergeants and petty officers. It should be pointed out that the commendations are announced orally or in an order, before the formation or at a meeting (or conference) of servicemen. The nature of the fightingman's services or distinction, as well as his previous attitude toward the service, are taken into account for determining the specific type of commendation.

Servicemen may also be recommended for orders and medals of the USSR for demonstrating courage and valor in the performance of their military duty, for excellent achievements in the combat and political training, for the excellent mastery of new and complex combat equipment, and for other outstanding services to the Soviet state and the Armed Forces of the USSR.

The announcement of orders on commendations, as well as the presentation of awards to outstanding fightingmen, ordinarily take place in a formal setting.

In the interest of the homeland's defense, however, the commanders and chiefs are obligated to resolutely and firmly demand the observance of military discipline and order, and not to let a single infraction by a subordinate go by without taking action. Depending upon the nature of the infraction, regular servicemen can be brought to disciplinary or criminal account. Each of these types of liabilities must be briefly discussed.

Fightingmen bear disciplinary liability to their own chiefs. Article 82 of the Law of the USSR on Universal Military Duty states that servicemen and draftees called up for assemblies are liable under the disciplinary code of the Armed Forces of the USSR for violating military discipline or public order. The instructor must read Articles 48 and 49 of that code, which list the disciplinary penalties imposed upon soldiers, seamen, sergeants and petty officers.

It is important to explain to the students that the code does not specify what specific measures of disciplinary liability are to be applied for a specific infraction. There is no standard governing this matter--an extra detail for an altercation, for example, a reprimand for appearing late for a formation, and so forth. Many things are taken into account for determining the punishment; the nature and consequences of the infraction, the circumstances under which it was committed, and the guilty party's previous conduct. The penalty is made more severe if the guilty party has committed infractions or taken part in a group violation of military discipline or public order in the past, as well as when the infraction was performed while on duty, during combat alert or in an intoxicated state. In all cases, the commander has the authority to determine the specific disciplinary penalty, and complaints about the severity of the punishment are not accepted, unless the commander has exceeded his authority.

The instructor should begin telling about criminal liability by reminding the students of Article 83 of the Law of the USSR on Universal Military Duty: "Servicemen and reservists called up for assemblies bear criminal liability in accordance with existing laws for crimes committed by them." The list of military crimes is defined with adequate thoroughness in the Law of the USSR on Criminal Liability for Military Crimes. It must be read during the class and explained to the students.

It must be pointed out to the students that the ukase passed by the Presidium of the USSR Supreme Soviet on 15 December 1983 and this law introduced a number of significant changes and additions, which went into effect on 1 January 1984. What kind of specific changes and additions were these? First of all, it should be noted that the law contains an additional article, which defines criminal liability for the violation of regulations governing interrelations among servicemen of equal rank. Specifically, it provides for more severe punishment for anyone striking another or for physical violence upon a colleague. Beatings or any other type of assault entails deprivation of freedom for up to 2 years, for example.

If such a crime is committed by a serviceman against several individuals, the punishment is increased to 5 years of imprisonment. The punishment is the same also when the victim sustains a less serious or slight bodily injury. A less serious bodily injury is a health disorder caused by a beating, which requires more than 3 weeks of treatment. Slight bodily injuries are black-and-blue spots, bruises, abrasions, scratches and so forth. The nature of the bodily injury is determined by experts in forensic medicine.

If such actions are committed by a group of individuals or if a weapon is used, as well as if the actions have serious consequences, the guilty parties may be sentenced to a prison term of up to 12 years.

The punishment for evading military service has also been spelled out more precisely. Unauthorized absence from the unit, for example, as well as failure to appear on time without a valid reason for discharge from the unit, for an assignment or a transfer, from a temporary duty assignment, from leave or from a medical facility, by at least 3 days but no more than a month, entails a prison term of 1 to 5 years. The punishment for absence from the unit for more than a month without a valid reason is a prison term of 3 to 7 years.

The instructor must explain to the students that these severe measures are applied out of concern for strengthening military discipline, law and order as the most important condition for maintaining the forces at a high level of combat readiness.

The military oath has a special place in the life and the service of each fightingman. From the moment the young soldier or sailor utters the exciting words and affirms them with his signature, the oath becomes the inviolable law governing his life and service. He is required to fulfill it both in time of peace and in a combat situation. The military oath is a document of great state importance. Established by an ukase of the Presidium of the USSR Supreme Soviet, it defines the basic principles underlying the serviceman's conduct and actions, and the moral-political and fighting qualities he must possess in order to be a skillful and reliable defender of the homeland. It is a good thing to read the military oath during the class and explain in detail the demands it sets for Soviet servicemen. It is recommended that the article, "The Military Oath of Loyalty to the Homeland," published in issue No. 16 of our magazine for this year, be used in the class.

The final words of the military oath require a great deal of every serviceman: "If I violate my formal oath, may I meet with the harsh punishment of Soviet law, with the universal hatred and contempt of the Soviet people." This means that the serviceman answers to the homeland and to the people for any deviation from the oath. It is said with good reason: "Once the oath is taken, don't stray from it one step." and "The oath is sacred for a soldier."

After that the instructor should begin telling about the great role played by military regulations in the life of every serviceman. They are rightly referred to as the code of laws on the military service. They explain all of the main principles underlying the combat activities of the forces, define the internal regulations for the subunits, units and ships, the rights and duties of the servicemen, the regulations governing their conduct, and so forth. No matter what aspect of the fightingman's service, training or personal life we consider, everything is defined and governed by regulations and manuals.

Our regulations summarize in concentrated form the many years of experience in the organizational development of the Soviet Armed Forces, as well as the combat experience acquired in armed conflict with the homeland's enemies. They fully reflect the contemporary level of development of military affairs and teach that which is essential for achieving victory, for reliably defending the socialist homeland. This is why the regulations are an important source of military information and provide the foundation for the struggle for firm discipline and order in the units and on the ships. "The regulations and the order constitute a law which must be observed by everyone without exception, absolutely and un-deviatingly!", Marshall of the Soviet Union D.F. Ustinov, USSR minister of defense, underscores.

But what does it mean for a soldier or sailor to observe the regulations absolutely? It means that he does everything as the regulations require. There is a good reason for the military sayings: "You serve better when you live according to the regulations." and "When you act in accordance with the regulations, you gain honor and glory."

Naturally, one must first have a solid knowledge of one's regulation duties in order to act in accordance with the regulations. The soldier or sailor who knows his obligations well carries out every order from the commander more successfully and masters his military specialty more rapidly.

Strict observance of the regulations is demanded of everyone at all times. A soldier goes on combat alert or guard duty, let us say. The regulations and manuals precisely define his list of duties. And if he knows them well and fulfills them irreproachably, nothing bad will happen. If, however, he deviates in any way from the requirements contained in the regulations, this will immediately have negative effects.

This is precisely what happened in one of the subunits of the Order of Lenin Moscow Air Defense District, for example. Private R. Chakryan was absent without leave. It was subsequently determined that a negligent attitude toward the dutyman's regulation obligations on the part of Sergeant S. Derluchyan, company duty NCO, was in great part the cause of this extremely gross violation of military discipline. There had been no evening roll call as such that evening. Many of the soldiers had lain down to rest ahead of the time designated for this in the daily schedule, and Sergeant Derluchyan and the subunit's sergeant-major had attached no significance to this infraction. One violation of regulation order thus entailed another, more serious violation.

This example demonstrates once again just how important it is for every serviceman to perform his service duties, the demands set forth in the regulations and the daily schedule, precisely and punctually. That which might appear at first glance to be a petty thing can have the most unpleasant consequences. This is why it is so important for every serviceman to constantly maintain firm regulation order. In a report at the All-Army Conference of Secretaries of Komsomol Organizations, Army General A.A. Yepishev, chief of the Main Political Directorate of the Soviet Army and Navy, stated that the military indoctrination centers around the struggle for precise regulation order, absolute fulfillment of the requirements contained in the military oath and regulations, and absolute obedience to commanders and chiefs.

When regulation order is discussed, it is important to stress the fact that this is not just a matter of internal order in the barracks, of spit and polish. Regulation order calls for the exemplary performance of combat alert and guard duty, and internal service. It includes precisely organized combat and political training, operation and maintenance of the equipment. Regulation order also means proper relations among the servicemen, strict observance of the daily schedule, the intelligent organization of the personnel's leisure time, and a high level of aware discipline on the part of the personnel.

The conscientious fulfillment of regulations is a manifestation of the serviceman's high level of discipline. Regulations and discipline are inseparable concepts, after all. One cannot call the individual disciplined, who disregards regulations. The Disciplinary Code of the Armed Forces of the USSR states that military discipline requires that every serviceman strictly observe the Constitution of the USSR and Soviet laws, and precisely fulfill the requirements contained in the military oath and military regulations, orders from commanders (chiefs) and those issued in their behalf.

We know what great importance V.I. Lenin attached to discipline in the Armed Forces. He called for the observance of all laws on the Red Army, for the fulfillment of all orders and the maintenance of absolute discipline in it, not out of fear but as a matter of conscience.

These instructions from Lenin are still valid today. A high level of combat readiness is therefore out of the question without firm military discipline. And in the era of nuclear weapons, military operations of enormous scope, dynamism and complexity, and the unprecedented importance of the moral factor, the slightest nonobservance of the requirements for military discipline can have the most serious consequences. Even isolated manifestations of negligence or lack of discipline are therefore absolutely unacceptable today.

It should be pointed out that discipline on the part of the Soviet serviceman reflects his high level of political awareness, his internal composure and his preparedness to unselfishly perform his sacred duty as a defender of the homeland. Marshall of the Soviet Union D.F. Ustinov, USSR minister of defense, points out that military discipline is first of all a political and moral matter. Its foundation is composed of the ideological conviction of the servicemen, of the collective's spiritual maturity.

It would be difficult to overstate the role and significance of the military collective, of the entire army and navy community, in the strengthening of discipline and organization and the maintenance of regulation order. Life has convincingly demonstrated that the more solidly united and organized the sub-unit's collective is, the better the moral climate in it, the greater the successes achieved in the combat training and the firmer the discipline. When relations within the collective are wholesome, based on principle and imbued with a spirit of respect and comradely demandingness, the fightingmen's service proceeds smoothly, and their morale is good. If, on the other hand, there are deviations from the military regulations and from our moral standards, this invariably affects both the training and the service of the personnel, and the collective begins to suffer.

This is why it is a matter of honor for every serviceman to struggle vigorously to maintain and strengthen discipline and military order in his collective, to be intolerant of the remiss, to do everything possible to help create a wholesome moral climate, to unite the military collective and to prevent nonregulation relations.

In conclusion, it must be pointed out that the Soviet servicemen are charged with the great and honored responsibility of reliably defending the peaceful labor of a people building communism. A profound understanding of this great mission inspires them to serve in an exemplary manner, to observe Soviet laws irreproachably and to fulfill the requirements contained in the military oath and military regulations, and orders from commanders and chiefs.

The following topics must be discussed with the students during the talk:

1. What demands did V.I. Lenin make with respect to socialist legality?
2. What kind of development have Lenin's ideas about socialist legality undergone in party documents?
3. What legal enactments govern the procedure for performing regular military service?
4. Why must the servicemen undeviatingly observe the requirements of Soviet laws, the oath and regulations?
5. What is

regulation order? 6. What role does military discipline play in the life of the army and navy? 7. What is the importance of the army and navy community in the strengthening of discipline and order?

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ARMED FORCES

CONDOLENCES FROM MILITARY COUNCILS ON USTINOV'S DEATH

Strategic Rocket Forces

Moscow KRASNAYA ZVEZDA in Russian 23 Dec 84 p 2

[Text] The military council and political directorate, communists and Komsomol members and all personnel of the Strategic Rocket Forces express deep sorrow regarding the terrible bereavement befallen our party, the Soviet people and the Armed Forces of the USSR--the untimely death of Marshal of the Soviet Union Dmitriy Fedorovich Ustinov, a prominent party and state figure, CPSU Central Committee Politburo member, USSR minister of defense, deputy of the USSR Supreme Soviet, Hero of the Soviet Union and twice Hero of Socialist Labor.

Dmitriy Fedorovich Ustinov's entire brilliant life and activities were an example of selfless devotion to the socialist Fatherland, the Soviet people and the cause of the Communist Party.

His name is linked to the implementation of the party's general course of comprehensively strengthening the economic and defensive might of the socialist state and increasing its prestige in the international arena.

The Soviet people will always remember Dmitriy Fedorovich Ustinov's enormous personal contribution in the Soviet people's achievement of victory in the Great Patriotic War.

In heading important and crucial sectors of party and state work, Dmitriy Fedorovich Ustinov displayed unflagging determination in the fighting for party ideals and the interests of the Soviet people.

The soldiers of the Rocket Forces, like all personnel of the Soviet Armed Forces, everyday sensed his truly fatherly concern for improving the Army and Navy. He was at the source of establishing and developing the Strategic Rocket Forces.

Dmitriy Fedorovich Ustinov will forever be remembered by Rocket Forces personnel as a man infinitely devoted to Marxism-Leninism, a man of principle and modest, dear to people and sensitive to their needs and concerns, having given everything of himself to the cause of serving the socialist Motherland.

In these days of deep national sorrow, the soldiers of the Rocket Forces, uniting their ranks even more closely round their own Communist Party of the Soviet Union, dip their battle standards to the fond memory of Dmitriy Fedorovich Ustinov. They assure the Leninist Central Committee and the Soviet government that they henceforth will increase vigilance and combat readiness, tirelessly strengthen good organization and discipline and properly carry out the tasks for protecting the great achievements of socialism.

#### Ground Forces

Moscow KRASNAYA ZVEZDA in Russian 23 Dec 84 p 3

[Text] The military council and personnel of the Ground Forces, together with all soldiers of our Armed Forces, express deep sorrow on the occasion of the great bereavement befallen the party, the Soviet people and their Armed Forces--the death of Marshal of the Soviet Union Dmitriy Fedorovich Ustinov, member of the CPSU Central Committee Politburo, USSR minister of defense, deputy of the USSR Supreme Soviet, Hero of the Soviet Union and twice Hero of Socialist Labor.

The heart has stopped beating in the faithful son of the Communist Party, a prominent figure of the CPSU and Soviet state and outstanding military leader who made a significant contribution to strengthening the economic and defensive might of the country, increasing the combat readiness of the Army and Navy, training and educating personnel and consolidating the combat unity of the USSR Armed Forces with the armies of the Warsaw Pact member-states.

The entire great and brilliant life and daily untiring activity of Dmitriy Fedorovich Ustinov, a communist-Leninist and one of the major organizers of the defense industry and leader of the USSR Armed Forces, is an example of selfless service to the Motherland and faithfulness to communist ideals. His name is linked to providing the Soviet Army and Navy with arms and combat equipment during the Great Patriotic War years.

The fruitful activities of Dmitriy Fedorovich Ustinov to strengthen the defense capabilities of the Soviet state and to increase the combat readiness of our Armed Forces, his tremendous capacity for work, high principles, warm-heartedness and responsiveness to people won him the love and respect of Soviet soldiers and all our people.

At this sorrowful hour, the personnel of the Ground Forces dip their battle standards to the fond memory of D. F. Ustinov and assure the CPSU Central Committee and its Politburo that henceforth they will stand vigilantly on guard of the peaceful labor of the Soviet people and tirelessly increase their vigilance and combat readiness.

#### Air Defense Forces

Moscow KRASNAYA ZVEZDA in Russian 23 Dec 84 p 3

[Text] The military council, political directorate and all personnel of the Air Defense Forces, like all Soviet people, are deeply mournful over the



terrible bereavement befallen the Soviet Armed Forces--the demise of Marshal of the Soviet Union Dmitriy Fedorovich Ustinov, CPSU Central Committee Politburo member, USSR minister of defense, deputy of the USSR Supreme Soviet, Hero of the Soviet Union and twice Hero of Socialist Labor.

In the person of D. F. Ustinov, the country lost a prominent Soviet party, state and military figure, one of the active builders of the USSR Armed Forces and ardent patriot of the socialist Motherland.

Dmitriy Fedorovich Ustinov devoted his entire conscious life to selfless devotion to the cause of the Communist Party and to strengthening the economic and defensive might of the socialist state.

The great talent of D. F. Ustinov for organizing fully came to light in the years of the Great Patriotic War in the responsible position of USSR People's Commissariat of Armament.

Under the leadership of D. F. Ustinov, enterprises of the people's commissariat expanded the mass output of combat equipment and weapons and resolved complex scientific and technical organizational problems to develop unsurpassed models of arms which helped to defeat fascist Germany and militaristic Japan.

In high party and state posts during the postwar years, D. F. Ustinov successfully fulfilled the tasks of the party Central Committee and the Soviet government to consolidate in every possible way the economic and defensive might of the country, to establish the Strategic Rocket Forces and to increase the combat potential of the Armed Forces.

All Soviet soldiers and Air Defense Forces know well the great personal contribution made by D. F. Ustinov to increasing the combat readiness of the Army and Navy, improving their technical equipment, developing the art of war, training and educating military personnel and consolidating the combat unity of the armies of the Warsaw Pact countries.

D. F. Ustinov was distinguished by a high party principle in his approach toward solving problems of military development, utmost exactingness of himself, high principles and moral purity and deepest responsibility for the job entrusted to him by the party.

The fond memory of Dmitriy Fedorovich Ustinov, faithful son of the Communist Party and the Soviet people and ardent patriot of the socialist Motherland, will forever remain in the hearts and memories of all personnel of the Air Defense Forces.

#### Air Forces

Moscow KRASNAYA ZVEZDA in Russian 23 Dec 84 p 3

[Text] The military council and political directorate of the Air Force with a feeling of great bitterness found out about the untimely death of Marshal of the Soviet Union D. F. Ustinov, CPSU Central Committee Politburo member, USSR

minister of defense, Hero of the Soviet Union and twice Hero of Socialist Labor.

The Soviet people and their Armed Forces have lost a prominent party figure and statesman.

The life and activities of D. F. Ustinov are a brilliant example of selfless devotion to the Motherland and the Soviet Armed Forces. He directed his tireless energy and uncommon organizing abilities and experience toward further increasing combat readiness and strengthening the combat might of the Army, Aviation and Navy.

Sharing the grief of the Communist Party and the Soviet people, the military council and political directorate of the Air Force express on behalf of all personnel condolences to the collegium of the USSR Ministry of Defense, the Main Political Directorate of the Soviet Army and Navy and the family and relatives of the deceased.

At this sorrowful hour, the aviators will unite even more closely round the CPSU Central Committee and henceforth will do the utmost to increase vigilance and combat readiness and stand vigilantly on guard of the aerial boundaries of our great Motherland.

#### Navy

Moscow KRASNAYA ZVEZDA in Russian 23 Dec 84 p 3

[Text] The military council and political directorate of the Navy express deep condolences in connection with the passing of Marshal of the Soviet Union Dmitriy Fedorovich Ustinov, prominent political and military figure of the Communist Party and the Soviet state, CPSU Central Committee Politburo member, deputy of the USSR Supreme Soviet, Hero of the Soviet Union, twice Hero of Socialist Labor and USSR minister of defense.

In the person of Dmitriy Fedorovich Ustinov, the Armed Forces have suffered a terrible bereavement. A talented military organizer has passed away who made a great contribution to implementing the general CPSU line and devoted all his strength and tremendous experience to strengthening the defensive might of the socialist Motherland.

The fond memory of Dmitriy Fedorovich Ustinov, loyal son of the Communist Party and the Soviet people, will forever remain in the hearts of sailors.

#### GSFG

Moscow KRASNAYA ZVEZDA in Russian 23 Dec 84 p 3

[Text] The military council and political directorate of the Group of Soviet Forces in Germany, the servicemen, workers and employees and their families were pained at the news of the passing of Marshal of the Soviet Union Dmitriy Fedorovich Ustinov, devoted son of the Communist Party and the socialist Motherland, prominent statesman and political and military figure, CPSU

Central Committee member, deputy of the USSR Supreme Soviet, Hero of the Soviet Union, twice Hero of Socialist Labor and USSR minister of defense.

Dmitriy Fedorovich Ustinov devoted all his strength and talent as a military leader to the cause of strengthening the combat and spiritual potential of the USSR Armed Forces, to equipping them with modern equipment and weapons and to educating command and political personnel.

In the hearts of soldiers of the Group of Soviet Forces in Germany, he will forever remain a considerate, sensitive and thoughtful communist leader.

We assure the CPSU Central Committee, the Ministry of Defense and the Main Political Directorate of the Soviet Army and Navy that in these mournful days for all our people the soldiers of the Group of Soviet Forces Germany will unite even closer round the Communist Party of the Soviet Union and its Central Committee and will demonstrate the highest vigilance and tirelessly increase combat readiness.

We express deep condolences to the friends and relatives of Dmitriy Fedorovich Ustinov.

#### Central Asian Military District

Moscow KRASNAYA ZVEZDA in Russian 23 Dec 84 p 3

[Text] The soldiers of the Red Banner Central Asian Military District with deep sorrow took the news about the passing of Marshal of the Soviet Union Dmitriy Fedorovich Ustinov, prominent Communist Party figure and Soviet statesman, member of the CPSU Central Committee Politburo and USSR minister of defense.

All generals, officers, warrant officers, sergeants and soldiers of the district will preserve the memory of Marshal of the Soviet Union Dmitriy Fedorovich Ustinov as a prominent party figure and an outstanding military leader who made a great contribution toward strengthening the country's defense.

In these sorrowful days, the personnel of the district are closing their ranks even more closely round the Communist Party and the Soviet government.

We assure them that we will with even greater persistence master military skills and strengthen combat readiness in the name of reliable defense of our socialist Motherland.

#### Northern Fleet

Moscow KRASNAYA ZVEZDA in Russian 23 Dec 84 p 3

[Text] The military council and political directorate of the Red Banner Northern Fleet and all fleet personnel express deep condolences in connection with the passing of Marshal of the Soviet Union Dmitriy Fedorovich Ustinov, CPSU Central Committee Politburo member, deputy of the USSR Supreme Soviet,

Hero of the Soviet Union, twice Hero of Socialist Labor and USSR minister of defense.

In these days of mourning, personnel of the fleet's ships and units (chasti, soyedineniya) grieve deeply and dip their battle standards to the fond memory of comrade Dmitriy Fedorovich Ustinov, a prominent Communist Party figure and Soviet statesman, outstanding military leader, ardent patriot and Leninist who devoted his entire life to the cause of strengthening the defensive might and protection of our socialist Motherland. In all the crucial positions which the party entrusted to him, he gave all his strength and knowledge to serving the interests of the people and increasing the combat potential of the Soviet Armed Forces.

On the occasion of the passing of Marshal of the Soviet Union Dmitriy Fedorovich Ustinov, we express our condolences to his family, relatives and friends.

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ARMED FORCES

MAIN GOALS, PROBLEMS OF LAST YEAR OF FOUR YEAR TRAINING CYCLE

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 20, Oct 84 pp 9-13

[Article: "Raise the Quality of the Political Training"]

[Text] The training year is nearing completion in the army and navy. It was filled with events which had a great influence on the combat and political training, on the spiritual life of the army and navy collectives and on the social and political activeness of the personnel. The most important of these events were the special February and April 1984 Plenums of the CPSU Central Committee, which reaffirmed the succession of the party's leadership and its general line, its unshakable unity, its loyalty to Marxism-Leninism, and its ability to develop and skillfully direct the creative activeness of the Soviet people, to unite them ideologically and organizationally, following the tested Leninist principles and methods.

The party Central Committee stressed once again with new force the fact that the CPSU's policy is based on tireless concern for the individual, for his well-being, for the growth of his creative capabilities and his culture. The accomplishment of this task is inconceivable without close ties between the party and the masses in which it gets its strength, checking its decisions against the interests of the working people and keeping council with those who are at the forward edge in the building of socialism and reliably defending the homeland with weapon in hand.

Fervently and unanimously approving the party's policy, the nation's workers and its armed defenders are devoting all their knowledge and energy to a continuing struggle to perfect developed socialism and to have peaceful conditions for the fulfillment of the creative plans. The speech delivered by Comrade K.U. Chernenko at the All-Army Conference of Secretaries of Komsomol Organizations gave new impetus to that struggle. Questions pertaining to the ideological and political indoctrination of the Soviet youth and servicemen in the Army and Navy, and to improving party supervision of the Komsomol occupied an important place in it. The conclusions, principles and recommendations contained in the speech considerably enriched the theory and praxis of the ideological indoctrination of the homeland's defenders. They were put into more concrete form in the decree passed by the party Central Committee, "On the 40th Anniversary of the Soviet People's Victory in the Great Patriotic War of 1941-1945," and in the plans universally worked out for implementing the demands contained therein.

The training year which is ending has been a year of further implementation of decisions coming out of the June 1983 Plenum of the CPSU Central Committee. The

military councils, commanders, political organs and party organizations have already accomplished a great deal toward practical implementation of its principles in the forces and fleets and toward enhancing the effectiveness of all the ideological, political and indoctrinational work.

Comrade K.U. Chernenko's book, "Narod i partiya yediny" [The People and the Party are One], is providing the communists and Komsomol members, and all of the servicemen with a great deal of assistance with the thorough comprehension of the results achieved in the area of ideological work and with the definition of ways to effectively accomplish the tasks outlined by the party. It thoroughly describes the party's work at the contemporary stage and demonstrates the importance of linking the ideological and indoctrinational work closely and organically with the resolution of urgent problems of economic, social and economic development, and with the strengthening of the basis for the socialist way of life, the nation's defense capability and the fighting strength of the Soviet Armed Forces.

The party's instructions on enhancing the nation's defense capability and the political awareness of the personnel are embodied in specific form in the work of the military councils, the commanders, political organs and party organizations. An active effort is underway in most of the districts, groups of forces and fleets to provide more thorough ideological support for the tasks having to do with combat readiness and to enhance the quality of the political training.

The effectiveness of the political training has recently been improved in the Carpathian and Volga military districts, in the Northern Fleet and in the Group of Soviet Forces in Germany.

The political training is having little influence upon the life and work of the troops in a number of places, however. This is manifested primarily in inadequate supervision of the system of political training and party education. The commanders and political workers are not striving for an organic union of the ideological and indoctrinational and the organizational tasks in all of the classes. The communists in charge do not always monitor all aspects of the ideological and theoretical training for the personnel. It is frequently reduced to a matter of assessing the organizational aspect of the classes--attendance percentages and the existence of outlines, training and visual aids--and proper importance is not attached to studying the quality of the training. Grades for political training are inflated in a number of formations and units, and the level of a serviceman's political awareness and his service activeness is not taken into account along with his knowledge. Attention is not being given everywhere to material support for the political training and party education, to the provision of libraries, reading rooms and methods offices with original sources and supplementary literature, aids, drawings and technical propaganda equipment. The preparation of leaders for the political training groups is in need of considerable improvement, both during the planned assemblies and seminars and in the process of the independent work performed to improve theoretical knowledge and methodological skills.

In the new training year, just as before, the substance of the political training for the servicemen is defined by decisions of the 26th party congress and the

June 1983 Plenum of the CPSU Central Committee, by the requirements set forth in guiding documents issued by the USSR minister of defense and the Main Political Directorate of the Soviet Army and Navy, and by the training and subject plans. The political training and party education must focus on further uniting the servicemen round the Communist Party, on motivating the personnel to perform their military duty in an exemplary manner, and on developing in the serviceman a constant readiness to reliably defend the homeland, our friends and allies against imperialism's aggressive intrigues.

The main attention in the political training should focus on the thorough and integral mastery of revolutionary doctrine, the essence of the works of the Marxist-Leninist classics and party documents, and questions pertaining to the CPSU's foreign and domestic policy, and on recognizing the importance of the tasks set for the Armed Forces by the party. The next training year will be the final year for the study of the four-year series of urgent problems of party theory and policy in light of decisions coming out of the 26th CPSU Congress. Its orientation in the Marxist-Leninist training has been one of intensive study of questions of military, moral, heroic and patriotic, and international indoctrination of the personnel, and the development of good moral-political and fighting qualities in the servicemen. The set of subjects covered by training plans for military psychology and pedagogics, and group classes on problems of improving the military indoctrination, strengthening discipline, law and order, as well as classes on Soviet law in the officer training system are also devoted to the current needs of military praxis. In addition, the plan calls for conducting scientific and practical conferences on the 40th anniversary of the Soviet people's Victory in the Great Patriotic War of 1941-1945.

Extra time (14 hours) is allocated for studying party and government decisions, the military-political situation and the specific features of the missions of branches of the Armed Forces, districts, groups of forces, fleets, formations, units and ships. The political directorates and political organs of the groupings and the directorates of the central apparatus are permitted to make changes in specific subjects, taking into account the specific nature of the work and the training level of the students making up the groups.

The political training plan for shore-based and seagoing warrant officers provides for more thorough assimilation of the principles underlying the political, moral and military indoctrination of the personnel, in addition to the study of introductory subjects on problems of developing vigilance and maintaining a constant state of combat readiness. Women in the service will begin studying under new training plans.

Soldiers, sailors and regular sergeants and petty officers will begin studying the sections of the training plan, "Our Goal is Communism" and "Guarding the Socialist Homeland," as part of the system of political classes. A number of subjects dealing with the tasks of enhancing vigilance and combat readiness, strengthening military discipline and improving the moral indoctrination of the servicemen are to be studied prior to the beginning of each training period as part of the system of political classes.

When conducting classes in all of the different kinds of political training, it is essential to give special attention to their substance. In addition to explaining theoretical questions intelligibly, we need to strive to closely link

the problems being studied with the life of the troops and naval forces and with the tasks being performed, and to make the lectures and seminars more aggressive. Greater attention needs to be devoted to exposing alien ideology and morals, to publicizing the advanced know-how of experts in the training, highly rated specialists and masters of military affairs, as well as to specific and purposeful criticism of deficiencies in the service and in the conduct of individual servicemen. The ideological content of the classes should be enhanced by intensifying the theoretical training of regular and supernumerary propagandists, by developing debate, by thoroughly studying party documents and all original sources, by drawing extensively upon supplementary literature, articles and monographs on the topics being studied, and by organizing the independent preparation of the students more skillfully.

In order to improve the methods, it will be necessary to make thoughtful and creative use of the special-problem method, which makes it possible to enhance the activeness of the students in the seminars and give them a more thorough mastery of the training material. A more skillful and methodologically competent approach should be taken to the use of the lecture and seminar and the narrative and discussion method in the political classes. The methods are selected on the basis of the general education level and the national makeup of the group of students, the training subject, the instructor's experience and the conditions under which the classes are conducted. Questions pertaining to the teaching of methods to supernumerary propagandists should receive more attention at assemblies, in seminars and in open and demonstration classes.

An important place in the work of the political organs and party organizations must be assigned to supervision of the system of party education, economic training and Komsomol political education. The main stress should be on perfecting the training style of the party and Komsomol aktiv. But this will require the elimination of existing shortcomings and a decisive rejection of elements of formalism; intensification of the ideological content of the training, and closer attention to questions pertaining to the development of Marxist-Leninist theory at the contemporary stage; an increase in the role and the importance of party education in increasing the service, labor and public-political activeness of the servicemen, blue- and white-collar workers of the army and navy; perfecting the training methods and extensively adopting the active methods of conducting classes.

The specific features of the new training year must be taken into full account in the training process: preparations for the next, 27th, party congress and for the 40th anniversary of the Soviet people's Victory in the Great Patriotic War of 1941-1945, and the nation's entry into the final phase of the 11th Five-Year Plan. Specific questions pertaining to the organization, the substance and the methods of the training process in the new training year have been explained in editorials published in the 10 August 1984 issue of PRAVDA, issue No. 34 (August 1984) of EKONOMICHESKAYA GAZETA, and the 21 August 1984 issue of KOMSOMOL'SKAYA PRAVDA.

Classes begin on 1 October 1984 in the universities of Marxism-Leninism in the two-year schools for the party aktiv, in the one-year schools for young communists and in all forms of training for blue- and white-collar workers. They begin on 1 December in the one-year schools for the party aktiv. By decision of



members of the military councils--the chiefs of the political directorates of branches of the Armed Forces, districts, groups of forces and fleets--may be started where inspection is conducted in October, after the inspections and exercises have been completed.

The political organs and party committees specify the training courses and programs for all forms of political training for blue- and white-collar workers, based on their professional interests, their educational level and the nature of their work.

The study of special-subject plans and programs approved by the chief of the Main Political Directorate of the Soviet Army and Navy will be continued at universities of Marxism-Leninism, schools for the party aktiv and one-year schools for young communists in the service.

The role of the propaganda departments at universities of Marxism-Leninism must be enhanced in the preparation of propaganda cadres for the political and party training. The chiefs of universities of Marxism-Leninism should coordinate the procedure for conducting the propaganda practice (16 hours) with political organs and party organizations prior to the beginning of the training year.

In the new training year, considerably greater attention must be given to the classes at schools for the party-management aktiv--an extremely important form of training and indoctrination for party-management leaders from among blue-collar workers of the army and navy. They should operate primarily in the political departments of the rear service staffs of districts and fleets, and special units at garrisons. The training of the students at the schools should concentrate on the study of the training plan: "Current Problems Pertaining to the Perfection of Developed Socialism" (Read POLITICHESKOYE SAMOOBRAZOVANIYE, No. 8, 1984).

The teaching staffs at general education schools will increase their knowledge at schools of scientific communism, studying under the new program: "The Reform of the General Education and the Vocational School is a Component of the Process of Perfecting Developed Socialism."

It is recommended that non-party blue- and white-collar workers and non-working members of the families of servicemen be involved more extensively in training at political schools, in filmed and other lecture agencies, and in groups, in which the main attention this training year will focus on the study of questions having to do with the CPSU's foreign and domestic policy.

The first class for all forms of training for blue- and white-collar workers will be on the subject, "It is the Patriotic Duty of Each Individual and of all the Labor Collectives to Provide Highly Effective Labor and Successfully Complete the Five-Year Plan," and at the universities of Marxism-Leninism, the schools for the party aktiv and the one-year schools for young communists, it will be on the subject, "It is the Patriotic and International Duty of Soviet Servicemen to be on the Alert, in a Constant State of Readiness to Protect the Homeland and the Gains of Socialism." It is planned to conduct classes on the worldwide historical importance and the sources of the Soviet people's Victory in the Great Patriotic War of 1941-1945 in April and May of 1985 within the system of party training, economic education and Komsomol political education.

In order to enhance the effectiveness of party education, we need to devote greater attention to the training of instructors for economic schools and seminars, to teaching them the forms and methods for conducting practical classes on advanced know-how and the ability to analyze the economic performance of the collectives, to compile and defend personal and brigade plans for increasing labor productivity, and personal conservation records, to compile well-based socialist commitments and counterplans, work out practical assignments, analyze specific production situations, and prepare papers and proposals for perfecting management methods.

It is the direct duty of the chiefs of political organs and secretaries of party organizations to constantly keep their eye on the way the classes are conducted, on their content and on the methods employed, in all forms of political training, party and economic education, and Komsomol political education. During the report-and-election party, trade union and Komsomol meetings, we need to consider thoroughly and demandingly the entire group of factors for achieving further improvement of the quality and effectiveness of the training for communists and those who are not members of the party.

At the present time, it is the important task of commanders and political organs to complete the training year in an organized manner for all the forms of political training. We must do a good job of preparing and conducting the final classes, in which every student should be evaluated on his merit. It is useful to make the conclusions from those classes the subject of serious discussion in the political organs, at assemblies of regular and supernumerary propagandists, leaders of Marxist-Leninist training groups for officers, generals and admirals, and political training for shore-based and seagoing warrant officers, the instructors of political classes for soldiers, sailors, sergeants and petty officers, and at conferences of command and political personnel.

Not much time remains until the beginning of the new training year. It should be used in a manner which assures thorough preparation of both the students and the group leaders who work intensively and effectively to master the new political information, to turn it into firm ideological convictions, into a guide to action. This will contribute to the strengthening of our nation's defense capability, after all, and to the enhancement of the fighting strength of the Soviet Armed Forces.

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## GROUND FORCES

### CAPABILITIES OF BRITISH CHALLENGER MBT EXAMINED

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 84 (signed to press 10 Oct 84) pp 35-38

[Article by Col Ye. Viktorov: "The British Challenger Tank"]

[Text] In the militaristic preparations in which Great Britain's ruling circles are actively engaged, considerable attention is being given to the acquisition of modern types of weapons and military equipment by the forces. According to foreign press reports, regular production of the first Challenger, the new British main battle tank, was begun in the nation at the end of 1982. The Western press has reported that the Ministry of Defense initially ordered around 250 of the tanks to outfit one of four armored divisions of the British Rhine Army over a period extending to 1986 and that it then plans to purchase another 200 of the machines so that at the end of the 80's they will make up approximately half of the tank pool of the British ground forces.

The Challenger (see colored insert [photos not reproduced]) is based on the Shear-2 tank, which was developed for Iran. It is an improved version of the Chieftain main battle tank, which has been a part of the armament of Great Britain's ground forces for almost 20 years (there are around 900 in all).

The foreign press states that the Challenger, which is considerably superior to the Chieftain tank with respect to main battle features, especially its protection and mobility, has the classic arrangement (Figure 1). The hull and turret are made of Chobham armor. It has a combat weight of around 60 tons and carries a crew of four. Steel plates are mounted on the sides, reducing the effect of hollow-charge ammunition. The tank is equipped with an air filtration system to protect the crew against weapons of mass destruction.

The driver's compartment is in the forward part of the hull, with the driver-mechanic's seat in the center (Figure 2). In order to increase the angle of slope of the hull's upper armor, thereby reducing the height of the tank, the "battle" position for the driver-mechanic is semi-reclined. He has a wide-angle viewing device for daytime operation, which is replaced at night by a non-illuminated infrared instrument. The area for the basic ammunition load is next to the driver-mechanic's seat.

The tank's fighting compartment houses the main armaments, most of the basic ammunition load, components of the fire control system, the seats of the commander and the gunner (to the right of the gun), as well as that of the loader. The motor and transmission compartment is in the stern section of the hull.

An L11A5 120mm rifled gun is mounted in the tank turret. It is an improved version of the weapon on the Chieftain tank. The gun barrel is made of high-quality steel produced by electroslag smelting, which has made it possible to increase bore pressure to  $6400 \text{ kg/cm}^2$ . The designers note that the use of this method has also significantly raised the barrel's fatigue limit. Cracks formed in it by large operating loads grow one-third less rapidly than those in a barrel made of ordinary steel, and this increases its service life correspondingly.

The gun barrel has been shortened somewhat to improve its balance when firing on the move. It has an ejector and a heat-insulating jacket. A new design has been used for the breach mechanism to achieve more reliable obturation. The gun has separate loading. The basic ammunition load (52 rounds) includes armor-piercing sub-caliber shells (fin or rotation stabilized), hollow-charge shells, armor-piercing HE shells and smoke shells, as well as shells with prefabricated destructive components. The sub-caliber, armor-piercing, finned shell (Figure 3) has a core made of a tungsten alloy. A separating sabot consisting of three parts held together by nylon rings is screwed onto it. The front ring serves to fix the shell in the barrel, while the rear ring functions as an obturator. The fin is screwed onto the end of the core. This shell has an initial speed of  $1500 \text{ m/s}$ . A 120mm sub-caliber, armor-piercing finned shell is presently being developed, which will have a core made of depleted uranium. The British specialists believe that this will give it a greater piercing capability than that of the aforementioned model.

Shells ready for firing are kept in ammunition stowage containers with a liquid-filled "sleeve," which reduces the likelihood that the ammunition will ignite or explode in case of a fire inside the tank. The shell cases are combustible.

An automated fire control system is used on the Challenger, which includes a laser range-finding sight on an yttrium and aluminum shell, which uses neodymium (Figure 4), and an electronic ballistic computer. The gunner has two sights: a daytime periscopic sight with 10-fold magnification and an auxillary telescopic sight. The nighttime channel of the optical sight is not yet being used for operating in the dark, but the development of a heat-seeking sight should be completed in the near future. The switch for selecting the weapon (the gun or a 7.62mm machine gun paired with it) and the type of ammunition, a two-position switch for controlling the laser range-finder, and a tumbler switch for input of signals from the ballistic computer are located on the gunner's control panel. The ballistic computer receives information on target range and angular velocity, as well as on wind velocity, atmospheric pressure, air temperature and the level angle for the gun's trunnion pins.

The stabilization system makes it possible to move the barrel smoothly at a speed of  $0.01$  to  $6^\circ/\text{s}$  vertically and  $0.01$  to  $24^\circ/\text{s}$  horizontally. The gunner has all of the data necessary for firing in the field of his sight. The sight is adjusted (without the crew leaving the tank) by means of a collimator

installed on the turret and a reflecting mirror attached to the end of the gun barrel near the muzzle.

The commander uses a sight (with a stabilized field) which is linked to the gunner's sight. His cupola has eight periscopic viewers providing all-round observation. In case the tank is illuminated by a laser beam, there is an indicator which warns of the laser irradiation. The commander has almost the same sort of control panel as does the gunner. In certain cases he can take over control of the gun and fire at the chosen target.

The tank's secondary armament includes two 7.62mm machine guns, one of which is paired with the gun, while the second (antiaircraft) is installed above the hatch of the commander's cupola. The basic ammunition load is 4,000 rounds. Five-barrel grenade launchers are mounted on both sides of the front part of the turret for laying smoke screens.

The 12V-1200 Condor 12-cylinder, V-shaped, four-stroke diesel engine used in the Challenger and a turbosupercharger (1200 h.p.) are produced together with the transmission as a single unit. This simplifies repair in the field significantly, since only around 45 minutes is required to dismantle the power unit. It can be transported with an ARRV Mk7 armored repair and evacuation vehicle developed from the Chieftain tank and equipped with a hoist with a lifting capacity of 6.5 tons (Figure 5).

There is an H30 37h.p. auxiliary engine to the left of the main engine. It is connected to a generator and is used for recharging the storage batteries and warming them up prior to starting the main engine at low temperatures, as well as for powering the electric gun laying drives and power consumers in the fire control system when the main engine is not operating.

The two engines have a common liquid cooling system, which includes two horizontally positioned radiators, an expanding tank and three fans (two of them are for cooling the main engine, while the third cools the auxiliary engine). The radiators can easily be moved to vertical position for ease of inspection and maintenance. The cooling system makes it possible for the engine to work at maximum capacity with the air around it at a temperature of less than 52°C.

The Challenger uses a TH-37 transmission with a torque converter and a planetary gear box, which has four forward gears and three reverse gears. The torque converter is activated with a friction clutch and is used for converting torque only in the first gears. For the remaining gears it functions only as a hydraulic coupling to keep the flow of power constant during the shifting of gears. It is stated that the hydraulic transmission in the steering mechanism drive makes it possible to control the turning radius over the entire range with adequate smoothness.

The transmission (a mechanical, electrical and hydraulic control system) functions in automatic or manual mode. In the former the gears are engaged by means of electromagnetic valves in accordance with road conditions. Turning is effected by means of two levers. Brakes with discs which operate in oil and have metal and ceramic linings are used in the brakes.

Although the Challenger reached a speed of 70km/h on the highway during testing, 56km/h is considered to be its maximum speed. It has a range of around 500km. The running gear includes six track wheels and four support rollers on each side, driving sprockets and tracks with a metal articulated joint and track pins with rubber liners. The track wheels are paired and have rubber tires, large aluminum discs and steel hubs. Suspension is hydropneumatic. It provides for extensive dynamic movement of the wheels (up to 340mm). Gas serves as the expansible substance in it, and the liquid (oil) compacts it. Flowing through openings and valves, the latter produces a cushioning effect.

The Western press has reported that during all-around operational and troop testing of experimental models and the first regularly produced models of the Challenger, its main elements and assemblies demonstrated an adequately high level of reliability. It was not inferior to the Scorpion light reconnaissance tank with respect to moving over broken terrain. It is anticipated that in addition to acquisition for Great Britain's ground forces, the Challenger will also be produced for export.

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## GROUND FORCES

### VALUE OF ENGINEERING, AERIAL PHOTO SUPPORT TO TANK OPERATION

Moscow KRASNAYA ZVEZDA in Russian 15 Dec 84 p 2

[Article by Lt Col M. Ziyemin'sh, KRASNAYA ZVEZDA correspondent: "Send In The Engineers" - A difficult test; pictures told the story; from a demonstration to practice"]

[Text] Tank battalion commander Maj B. Smekhnov distinctly saw through his field binocular foxholes, trenches and connecting trenches with natural breaks in their lines. He also saw single foxholes immediately in front of the "enemy's" main positions. Most probably, these forward foxholes were meant for tank destroyers.

All of this could be seen. Of course, there were mine barriers as well. Minefields are an integral element of a modern defense. The battalion commander prepared to overcome these minefields with the assistance of vehicles equipped with wheeled mine-clearers.

It would seem that Maj Smekhnov had considered everything in his attack planning. From the start, however, the battle did not progress in the manner he had assumed. Having penetrated the "enemy's" zone of effective fire, his tankmen did not encounter the stubborn resistance they had anticipated. The first trenches of the defenders were overcome with relative ease. Considering the battle won, the battalion commander went over to the pursuit of the "enemy." Only after he had penetrated deeply into the "enemy's" defense and removed the mine-clearing equipment from his vehicles which were impeding the advance and which he no longer considered necessary, he realized that he had yet to encounter the "enemy's" main forces. Only a light screen had been on the forward edge. The carelessness in camouflage had been intentional.

The situation became critical for the tankmen. Deep in the "enemy's" defense, several tanks "blew up" in a minefield sown by the "enemy." Mine-clearing equipment was necessary, but it had been left in the rear. Serious complications also arose in organizing the repulse of an "enemy" counterattack which, judging by intelligence data, was to be supported by artillery and aircraft. Having soberly evaluated the situation, the battalion commander decided to repulse the counterattack with fire from a favorable line. It is known that a tank, when it is dug in, can successfully confront several attacking tanks. This can be easily concluded mathematically. But there was little cover in the sector and

the tankmen had nothing with which to dig emplacements for their vehicles. Even the most important instrument, a shovel, was lacked by the platoons.

Once again, because of personal omission, one of the battalion's companies was caught in a difficult situation when it had reached the channel of a stream with high and steep banks. It was necessary to perform the simplest mission of engineer support: the building of slopes. The company's personnel, however, could not do this. The company commander reported the obstacle with the entreaty: "Send in the engineers." The engineers bailed the tankmen out in this case, but the loss of time complicated the battalion's already difficult situation even more.

The subunit's personnel, who before the battle had shown a decent understanding of the basics of engineering and its theory, proved to be unprepared for the actual matters at hand; they did not possess the skill to prepare terrain themselves using engineer equipment.

During the critique of the exercise, the commander-in-chief of the district forces, Col Gen A. Ryakhov, seriously criticized not only this shortcoming on the part of the subunit's field skills. At his instruction, enlarged aerial photos of the battlefield had been prepared and set up for everyone's viewing before the beginning of the critique. One did not have to be an intelligence specialist to be able to determine from these photos the locations of the command observation points, equipment and personnel. For example, on one of these photos, a column of tanks was following a plain, even though there was a wooded area right next to it. The smoke of field kitchens and campfires told many things as well. One photo which drew particular attention showed neither people nor equipment, but the distinct patterns of tank treads along the stream's banks betrayed the crossing point.

Everyone could draw his own conclusion: Even the camouflage in this training exercise left much to be desired. One could also put it this way: The tankmen simply had not bothered with camouflage.

Why had the officers underestimated engineer support measures during this exercise? There is only one answer: They assumed that specialists would bail them out, specialists from the engineer subunits. Words fail me; the equipping of crossings and water supply point and the construction of bridges require highly specialized training. Motorized riflemen and tankmen can manage these tasks only with great difficulty without the assistance of engineer forces subunits. But we are not talking about this kind of problem here.

Combat engineer support presumes a multitude of efforts which require no special qualifications. The soldiers of all the services cannot expect success in battle if they lack corresponding skills and training.

The experience of the Great Patriotic War bears this out. It was a precept for a frontline soldier who could no longer continue the offensive: dig a foxhole or slit trench, occupy natural cover - pits, shell craters, side drains -, prepare a fire position, and camouflage carefully.



Some officers assume that there is no need for particular expertise in digging in the ground or constructing cover. They allege that in an actual combat situation, everyone will master this simple art. The memoirs of one military leader recall something about this. On the distant defensive lines before Moscow during that difficult year of 1941, he specifically had to walk along the positions to find a properly dug-out and, of course, reliable soldier's foxhole. When he finally saw such a foxhole, there was this middle-age soldier in it who had remembered from his time in the First World War how it was necessary to utilize the terrain's protective features. It was especially to this foxhole that the military leader called together all his commanders to show them what they had to teach their subordinates. A dear price is sometimes paid in combat for omissions in training.

Digging in has lost none of its importance. On the contrary, its role has increased. Victory in modern combat is unthinkable even in that situation where motorized rifle, tank and artillery subunits are not prepared, either together with the engineers or independently, to build cross-country roads, clear passages through enemy barriers, build various kinds of crossings over natural obstacles and erect barriers along the enemy's routes of movement. The soldiers of all the armed services need to possess firm skills for preparing positions, laying antitank and anti-personnel mines, preparing bridges and roads for demolition, constructing barriers, obstacles and antitank traps, and utilizing diversionary tactics for the purpose of camouflaging columns... The list goes on and on.

Life obligates us to view engineer training not as an isolated learning discipline, but as an essential element of all exercises and training situations.

Maj S. Malinkin's motorized rifle battalion had been on the defensive for more than 24 hours. The employment of weapons of mass destruction by the "enemy" was not ruled out. This means it was necessary to worry about the gas proofing of defensive facilities during their construction. Soft ground had forced the commander to think about the surfacing of slopes. Mats were required for the covering of trenches. The commander and his men faced other problems totally solvable in this situation. However, a district staff officer, Lt Col V. Konovalov, newly arrived in the subunit, did not regard strong points in the manner described above. The subunit's troops did not even utilize a deep and twisting ravine which in itself offered certain protection from injury; however, it could add considerable firmness to the defense if fortified with foxholes. The officers and soldiers knew from talking to each other that the terrain can significantly reduce the damaging effects of modern weapons if properly prepared with engineer support. They had a poor understanding of the rules for properly constructing the basic types of field facilities.

The battalion commander explained the shortcomings in the defense organization not only because of the above. The argument went as follows: "The men were tired by the march and expected that engineer equipment would be brought up." Later he said that the motorized riflemen usually only construct a tracing of positions during exercises.

True, a strong point cannot be built on any terrain. This is permitted only in areas specifically designated for troop training. But can we be satisfied with the result that some soldiers after 2 years of service have never solved the problems associated with engineer work on the battlefield in a practical manner? No, we cannot.

This was the exact question asked at a meeting of staff communists from the division in which the battalions described above are located. I will state outright: The chief of engineer services, Maj N. Osadchiy, felt uncomfortable at this meeting. More, however, was implied with this question: What about the responsibility of commanders for the level of engineer training in the subunits entrusted to them?

A paradox results: According to all the rules, there is a fortified strong point at a formation's training center. This point is provided with foxholes, trenches and slit trenches for the soldiers, ammunition recesses, and items for combat and administrative use. There are models of minefields, sections of cross-country roads, areas designated for driver's training with overhead covering and a helipad. But regardless of how the soldiers grow accustomed to these finished facilities, they may not leave them trained. Visual demonstrations and theory need to be constantly reenforced with practice. This is what was said during the meeting. Every soldier needs to know clearly what is meant by the term "combat engineer support."

The discussion also included the point that the chiefs of regimental engineer services had no right to be absent from the classes with officers and warrant officers when these classes were about engineering. Strict staff supervision over the state of engineer training and the qualitative development of practical programs is necessary. Incidents when problems of an administrative nature are not properly solved because of a lack of engineer training deserve to be severely criticized by the party.

Winter combat training is accelerating. In summing up the lesson exercise results, it is not a waste of time to ponder everywhere the question: does engineering, without which victory in modern combat is impossible, entwine organically in the fabric of combat training?

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5 March 1985

## AIR/AIR DEFENSE FORCES

## U.S. ALCM TEST IN CANADA

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 84 (signed to press 10 October 84) pp 47-48

[Article by Col V. Kirsanov: "The Testing of American Cruise Missiles in Canada"]

[Text] According to foreign press reports, the U.S. Air Force tested the air-based AGM-86 cruise missile (CM) in Canada's airspace in March of 1984 (American B-52 heavy strategy bombers began to be armed with these missiles in September of 1981, and four squadrons have now been outfitted with them). Preparations for the testing were begun immediately after a Canadian-American agreement was signed in Washington on 10 February 1983 on the testing of new weapons. According to the Canadian press, it raised a storm of anger in the nation. The Toronto newspaper GLOBE AND MAIL wrote on the matter that according to the results of public opinion polls, more than 52 percent of Canada's residents are resolutely against giving the United States the right to use their nation's territory and airspace for the testing of American military equipment not intended for any kind of defensive purposes.

Despite protests by the Canadian public, however, which increased constantly throughout the year, a camouflaged B-52G bomber took off from the U.S. SAC base at Grand Forks, North Dakota, on the night of 5 March 1984 and headed for the northwestern coast of Canada. It carried four AGM-86 cruise missiles beneath the wings, including one intended for testing and one reserve missile. Swinging around over the Beaufort Sea, the aircraft reentered Canadian airspace near the city of Inuvik and flew along the Mackenzie River to the city of Fort Simpson. It then turned to the south until it reached the city of Dawson Creek and took a course toward the Primrose Range located on the boarder between the provinces of Alberta and Saskatchewan.

The main objective of the test, the Western press reported, was to thoroughly check out the efficiency of the cruise missile's guidance system while flying over snow-covered, unbroken terrain, which the American experts believe has considerable similarities with the terrain of most of the northern regions of the USSR.

In order somehow to dampen the growth of anti-American sentiments among Canada's population, the U.S. Air Force announced its intention to conduct the first test

without the cruise missile separating from the aircraft. An air corridor around 2500 kilometers long and 150 kilometers wide was reserved for the flight. On the final section of the route, over frozen Cold Lake, the bomber, flying at an altitude on the order of 300 meters, simulated the maneuver of dispatching the missile to the target, after which it gained altitude and returned to its base. Throughout the carrier's entire flight, information on the functioning of the missile's guidance system was transmitted for recording and subsequent study over telemetric channels to an accompanying EC-135 aircraft flying a parallel course. The latter's crew included both American and Canadian experts. Literally the next day, the Western press contained reports that the U.S. Air Force was completely satisfied with the results, since the missile's guidance system had functioned with sufficient reliability.

The test, which the U.S. newspaper CHRISTIAN SCIENCE MONITOR noted, was the first test of an American system for delivering nuclear weapons at a range of the Canadian Air Force, involved extraordinary security measures. Among other things, the air space along the bomber's flight route was constantly monitored by means of airborne radar on an E-3B long-range radar spotting and control aircraft (AWACS), the airport at Grand Center, located near the Primrose Range, was closed and all flights temporarily banned there, roads leading to the range were blocked off by military police posts, and according to the newspaper WASHINGTON TIMES, the total number of Canadian Army personnel in a state of advanced combat readiness reached approximately 6,000.

In March of 1984 the magazine INTERAVIA reported that the U.S. Air Force plans to renew the testing at the beginning of 1985. During the testing the missiles will separate from the carrier-aircraft and make an independent flight with the engine on. Every year, between January and March, when the surface of the earth in Canada has the greatest snow cover, the crews of B-52 strategic bombers will perform five or six real launchings of the AGM-86 cruise missile. While flying to the target, each of them will be accompanied by an EC-135 aircraft and an F-4 fighter. Should the missile deviate from the prescribed flight path, the latter's pilot is to adjust its flight course and altitude by means of a special control system, and if necessary, he can halt the flight by switching off the cruise missile's engine.

The missile will perform a programmed anti-aircraft maneuver during its approach to the range and then abruptly go into nose-up flight directly over the target in order to gain sufficient altitude for the emergency parachute to fully open. During the cruise missile's descent by parachute, a specially equipped HH-53 helicopter is to seize it in the air and deliver it to its destination.

Since the Canadian-American agreement elapses in 1988, the U.S. Air Force plans to focus its main efforts during the time remaining on tests in the Canadian north, primarily of existing cruise missiles. It is counting on extending the agreement, however, and plans to test a second generation of missiles, the ACM (Advanced Cruise Missile) in those natural conditions in the future. Development of the latter has actually only begun.

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AIR/AIR DEFENSE FORCES

MODERNIZATION OF NATO AIR DEFENSE GROUND ENVIRONMENT SYSTEM

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 84 (signed to press 10 Oct 84) pp 48-52

[Article by Lt Col V. Pavlov and S. Grishulin: "Modernization of NATO's NADGE Air Defense System"]

[Text] Pursuing an aggressive imperialist course of preparing a war against the USSR and other nations in the socialist commonwealth, the military-political leadership of the NATO bloc is stepping up its efforts not only to develop its offensive weapons systems, but also to further enhance the effectiveness of its air defense (PVO). In the opinion of NATO experts, air defense in the conduct of combat operations in the European Theater of War can be made highly effective by using modern active means of destruction and special systems with automation of the processes involved in gathering, processing, displaying and transmitting information on changes in the air situation for controlling those weapons in real time.

In order to accomplish these tasks, the main NATO nations began developing automatic systems of control (ASU) of air defense during the second half of the 50's. The NADGE (NADGE-NATO Air Defense Ground Environment), the automatic control system for NATO's Joint Air Defense System in Europe, was the first in Europe.

According to reports in the foreign press, the system presently includes four regional operational control centers (Regional Air Operation Center), located in the cities of Kolsos in Norway, Brunssum in the Netherlands, Naples in Italy and Stanmore in Great Britain. They are charged with controlling the Northern, Central, Southern and Atlantic (British) air defense zones respectively, the borders of which coincide approximately with the borders of the European theaters of military operations. The air defense zones consist of several regions which coincide territorially with the zones of responsibility of the joint or national tactical air commands, and the air defense regions are broken down into sectors. Control of the air defense personnel and equipment in each of the regions is assigned to a regional operational air defense center (Air Defense Operation Center), which is directly in charge of one to four operational centers of sectors (Sector Operational Center). The latter have control and reporting centers (Control and Reporting Center) and surveillance and reporting posts (Reporting Posts). Each control and reporting center is directly linked with subunits of active air defense weapons (antiaircraft and artillery battalions and fighter squadrons) and provide them with necessary information on the air situation.<sup>1</sup>

<sup>1</sup>For a more detailed account of the organization, the personnel and equipment of NATO's Joint Air Defense System in Europe read ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, No. 11, 1982, pp. 39-42.--Editor

The radar air target detection coverage in the NADGE system is created with the various types of radar used by NATO's European nations, based on the unified concept and the general strategic plan of the command element of the bloc's Joint Armed Forces in Europe. The foreign press lists the following as the main stations: the AN/FPS-7, TRS-2201, HADR (Fig. 1 [photos not reproduced]), TRS-2215D (Fig. 2), GE-592 (Fig. 3), Martello, TRS-2230D and RAT-315 long-range, triple-coordinate radar stations, the AN/FPS-8, S.247 and Argos-10 double-coordinate stations, as well as the AN/FPS-6, AN/FPS-89 and HF-200 radar stations for determining the altitudes of air targets, and others.<sup>2</sup> The radar coverage produced by means of these radar stations can be increased with the radar which is a part of the civil aviation's air traffic control (UVD) systems--the ASR-B1, ASR-5, SRE-5M and ASR-8, for example.

Many of the above-mentioned stations (the AN/FPS-7, AN/FPS-6, AN/FPS-89, S.247 and HF-200, for example), have been in use for more than 20 years. They ordinarily have reflecting antenna systems and, in the opinion of Western military experts, have side lobes at a relatively high level, which reduces their capability for working in a situation of active or passive jamming. Furthermore, with these radar stations it is not possible to efficiently and promptly switch from one radiation mode to another, that is, to alter the radiation power, the duration and repetition frequency of the transmitted pulses, or to readjust the polarization patterns of the radiated signals, and this makes them vulnerable to antiradar missiles. It is also felt that some of the radar stations do not fully meet the modern demands made of air defense radar with respect to the effective detection of small air targets (like cruise missiles) and targets flying at low and minimum altitudes. Inadequate operational capabilities of the radar data processing equipment make it difficult to provide the required handling capacity and to automate the processes involved in the functioning of the radar stations. Furthermore, practically all of these radar stations are stationary, which considerably reduces their survivability when active weapons are used.

The radar detection equipment of the NADGE air defense system is presently undergoing intensive modernization, the detailed plans for which were worked out by NATO specialists in the mid-70s. They mainly consist in replacing obsolete radar stations with new stations with phased antenna arrays. It is believed that they will make it possible to scan more rapidly as a result of the adaptive or programmed formation of the antenna radiation pattern and will have greater resistance to jamming, a greater handling capacity and survivability than existing stations.

Under these plans the computer equipment used for processing the radar information in the NADGE system will be replaced with microprocessors, which are complete units with their own command system and their own data storage, exchange and processing principles.

A number of foreign firms, including the American Hughes company which is the head company, are working on the development and production of the new equipment for outfitting the centers and posts in the NADGE control and warning system. Marconi of Great Britain, Hollandse Signaal of the Netherlands, Selenia

<sup>2</sup> The basic features of these and other stations are described in ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, No. 9, 1982, pp. 52-56. -- Editor

of Italy, AEG-Telefunken of the FRG and Thomson-CSF of France are also participating in the project. It is planned to deploy the new radar stations on dominant elevations (separated to the maximum possible degree) and mainly along the borders of Warsaw Pact nations, from Northern Norway to Eastern Turkey. The American AN/TPS-43E mobile tactical air control system and the 407/485L air defense system will be used in the gaps between the radar posts equipped with these radar stations. It is planned to place the control components of this system, including the electronic computers and information display devices, in inflatable shelters (Fig. 4).

It is planned to use mobile and transportable models of radar in the NADGE automatic air defense control system to enhance survivability. It is believed that this will make it possible to rapidly shift combat positions at the threat of enemy use of active means of destruction. In order to enhance the survivability of the radar stations, it is also planned to employ special protective measures against weapons which home on the radiation from operating radioelectronic equipment (radar decoys which simulate the functioning of radar stations, for example).

Along with the intensive realization of the program for modernizing NATO's Joint Air Defense System in Europe, a great deal of attention is being devoted to further improvement of the national subsystems and equipment making it up. The West German GEADGE air defense system (GEADGE-German Air Defense Ground Environment) is one of them. It consists of four radar posts with an operations center controlling one of the sectors of NATO's Joint Air Defense System in Europe. The decision to begin deploying it in the southern part of the FRG was made in 1979. The main focus in the realization of the plan for modernizing the FRG's air defense system and the radar stations which are a part of it is on replacing the obsolete American-produced 412L system, which has been in use since the beginning of the 60's and operates in conjunction with NADGE.

The foreign press has stated that after the modernization of the GADGE system is completed, in addition to the air defense sector operations center, control and reporting centers with HADR radar stations will be added. The first post to be a part of one of the centers and which is outfitted with this kind of radar station began operating at the end of 1983.

Special radar systems combined into the Lars system for detecting low-flying targets, which is presently being deployed along the eastern borders of the FRG, will also be used to make the detection of low-flying targets more effective in NADGE. It has 48 radar posts, each of which has one radar station. The posts are arranged in two lines a distance of 30-50 kilometers from the border. The lines are separated by around 30-40 kilometers, with a distance of around 30 kilometers between the posts. According to the Western experts, this makes it possible to provide solid radar coverage for detecting low-flying targets.

Radar posts in the Lars system are equipped with MPDR-30 radar stations (MPDR-45 stations will be used in the future). Their antenna systems are raised to a height of 12-15 meters and make it possible to detect low-flying targets at ranges of up to 30-50 kilometers. The MPDR-30 radar stations themselves are arranged in such a way that the zones overlap at low altitudes not covered by long-range detection radar of NATO's NADGE Joint Air Defense System.

The Lars system will be charged with the tasks of collecting, processing and transmitting summarized information on the air situation at low altitudes to the NADGE posts, as well as with reporting and issuing information on low-flying targets to subunits of the antiaircraft missile and artillery complexes. It will exchange information on the air situation with air defense posts of the ground forces and monitor flights by friendly aircraft. The information obtained by means of its radar stations is to be fed to data gathering and processing centers, which can also direct fighters dispatched against air targets flying at low altitudes.

It is planned to make extensive use of the airborne AWACS long-range radar detection and control system to enhance effectiveness in the detection of low-flying air targets in the NADGE system. Interaction with ground control centers and radar facilities in the NADGE system is considered to be an important condition for its operation. It is planned to accomplish this by using the special Link-16 jamming-resistant lines for transmitting information, which are used in the JTIDS (Joint Tactical Information Distribution System) employed in the tactical system, and special terminal devices for linking air and ground radar facilities.

In the process of modernizing the NADGE system, it is also planned to achieve closer cooperation with other national air defense subsystems of the nations making up the NATO bloc, including UKADGE (Great Britain) and Combat Grande (Spain). It is planned to achieve interaction with the French (Strida)-2 system, which is not actually a part of NADGE, with an exchange of information between their control centers, which will make it possible to derive a picture of the radar situation to a considerable distance from the territory of France.

The use of a reliable identification system making it possible to identify enemy air weapons with a high degree of probability is one of the important problems which the NATO experts plan to resolve in the process of modernizing the NADGE automatic air defense system. The Mk10 and Mk12 systems are presently being used in the NATO nations. The foreign experts feel that they have not completely resolved the problem of unifying the operating modes of ground and airborne equipment or the unified system of identification codes and their combat employment. Furthermore, under combat conditions the existing systems may be subjected to organized jamming, which will drastically reduce the probability of correct identification, and their low level of effectiveness will significantly complicate the functioning of their own air defense personnel and equipment. Along with modernizing the identification system, the NATO experts therefore plan to introduce and apply at the radar stations a system of identifying air targets by making extensive use of electronic computers with features of enemy air weapons and the flight plans of their own aircraft stored in the computer memory. During the functioning of the radar stations, this data will be compared with actual data on targets arriving from other radar facilities of the air defense system.

In the development and the subsequent modernization of air target detection systems and facilities abroad, a great deal of attention is being given to the standardization and unification of their radioelectronic equipment. The NADGE air defense system is no exception. It has been reported, among other things, that only individual components measuring up to NATO standards, as well as special equipment for linking the subsystems, have been adopted in the first



phase for the realization of subsequent plans for standardization and joint use by the various NATO nations. In subsequent phases it is planned to unify and standardize the components and subsystems at lower levels. This includes the use of standardized modules of computer equipment, antenna arrays, and information processing and display devices.

The Western experts believe that the extensive adoption of a modern component base and radioelectronic equipment for setting up the new radar stations will make it possible to considerably enhance their reliability in combat situations, to reduce operating costs and use them with minimal servicing and in the automatic mode. The GE-592 (Fig. 5) is one such radar station. It is planned to place the first one on combat watch in the northern areas of Europe, where the climatic conditions are poor. This will make it possible to effect the automatic collection, processing and transmission of information on the radar situation to the air defense control and reporting centers and operations centers by radio or by line communication.

It is planned to modernize the radar systems and equipment in the NADGE system during the first half of the 90's.

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## AIR/AIR DEFENSE FORCES

### NATO COOPERATION IN NORTHERN THEATER

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 84 (signed to press 10 Oct 84) pp 43-47

[Article by Col F. Yur'yev: "NATO's Joint Air Forces in the Northern European Theater of Military Operations"]

[Text] As they implement their aggressive plans for preparing for a future war in Europe, the military and political leadership of the USA and NATO assign a significant role to the bloc's northern flank, the Northern European Theater of Military Operations (NE TMO). It includes the territories and coastal waters of Norway and Denmark, the West German state of Schleswig-Holstein and the area of the Baltic straits.

While of relatively small depth (not over 500 kilometers), the theater stretches, from north to south, from the cape of Nordkapp (northern Norway) to the city of Hamburg in the FRG, a distance of 2200 kilometers, and covers a total area of more than 380,000 square kilometers. More than 12 million people live within its borders.

The strategic importance of the NE TMO is determined primarily by its geographic location. Western strategists regard it as an advantageous staging area for the deployment and operations of large groupings of air and naval forces for striking at vitally important centers and installations in the Soviet Union and other Warsaw Pact nations.

Despite the difficult geographic and climatic conditions of the theater, especially in Northern Norway, the NATO command believes that it is possible to conduct not only air and sea operations there, but also active operations on land. In the opinion of leading groups in the North Atlantic bloc, the NE TMO is of enormous importance for the bloc's entire military organization. This was confirmed by British General Farrer-Hawkey, former commander in chief of NATO's Joint Armed Forces in the theater, who stated that if a war in Europe is not won on the northern flank, it will be lost altogether.

According to the foreign press, an extensive program is being implemented at an accelerated rate in the NE TMO to modernize and build up the armed forces there and to develop the infrastructure in the interest of the entire bloc. For this purpose, intensive work is being carried out to adapt the airfields for receiving heavy American aircraft, and improvements are being made on the radar

network for monitoring air and sea space, as well as on the radio navigation systems designated for supporting the combat operations of aircraft and nuclear powered, missile-carrying submarines. According to reports in the foreign press, for example, there are presently 20 airfields and 10 naval bases which can be used by NATO's Joint Armed Forces in Norway alone. According to the Western press, the total capacity of the airfield system in the TMO significantly exceeds the needs of the states in that region. They can be used as bases for the large number of aircraft in the air forces of other nations in the bloc, which it is planned to transfer there to reinforce the air grouping in case of an extraordinary situation. Specifically, under an agreement concluded between Norway and the USA, it is planned to deploy up to 350 American combat aircraft, including a large number of nuclear weapons carriers, at eight airfields in a so-called "crisis situation."

NATO's Joint Air Forces in the NE TMO are designated for supporting the combat operations of ground forces and for providing air defense for extremely important areas and installations in the theater, as well as for performing, jointly with naval forces, missions involved in establishing control over the waters of the Norwegian and North seas, and blockading the Baltic straits. They include Norwegian, Danish and certain West German air units and subunits, which are organizationally combined into three separate commands: in Northern Norway, Southern Norway and the area of the Baltic straits.

Norway's Air Force is headed by a chief inspector. According to the foreign press, it presently includes eight squadrons of combat aircraft: five fighter-bomber squadrons (the 332nd, 336th, 338th, 334th and 718th, which have 50 F-16 and 36 F-5A aircraft), one fighter squadron (the 331st, which has 15 F-16 aircraft), one tactical reconnaissance squadron (with six RF-5A aircraft) and one base patrol squadron (with seven R-3B aircraft, Fig. 1 [Photos not reproduced]). In addition, Norway's Air Force has two squadrons of transport aircraft, two helicopter services and one search and rescue service, as well as training subunits, which have up to 50 planes and 45 helicopters for various purposes. The main forces of the Norwegian Air Force are stationed at Bodo, Bardufoss, Ruge, Erlan and Gardemon air force bases.

In addition to the above-mentioned 15 F-16 aircraft, which are a part of the 331st Fighter Squadron based at Bodo in Northern Norway, Norway's active air defense means include four batteries of Nike-Hercules antiaircraft guided missiles (36 launchers deployed in the area of Oslo) and four battalions of antiaircraft artillery guns equipped with L70 Bofors guns. In addition, there are seven battalions of 40mm antiaircraft guns in reserve. Exercises have demonstrated that the crews of the fighter-bomber squadrons can also be drawn upon to perform air defense missions.

Norway's Air Force has more than 200 planes and helicopters and a numerical strength exceeding 9800 men. Their units and subunits are organizationally under the command element of NATO's Air Forces in Northern and Southern Norway.

Denmark's Air Force includes a tactical air command (TAC) and a material and technical support command. They include around 200 planes and helicopters of various types, and their numerical strength exceeds 7400 men.

The TAC (headquartered at Karup) has been made operationally subordinate to the commander of NATO's Joint Air Forces in the area of the Baltic straits. It includes eight air squadrons: the 725th Fighter-Bomber Squadron (16 F-35 aircraft, Figure 2, and four TF-35, based at Karup), the 727th and 730th fighter-bomber squadrons (32 F-16 aircraft based at Skrudstrup), the 723rd and 726th air defense fighter squadrons (12 F-16 and 32 F-104G aircraft, Alborg), the 729th Reconnaissance Squadron (16 RF-35 and four TF-35 aircraft, Karup), the 721st Transport Squadron (three C-130H, three Gulfstream and eight C-47 aircraft), and the 722nd Search and Rescue Squadron (eight S-61A helicopters, Verlos), as well as four batteries of Improved Hawk antiaircraft guided missiles (24 launchers, Figure 3).

In addition, Denmark's Air Force has around 50 aircraft of various types (including training aircraft) and eight helicopters of national subordination.

In addition to the Danish Tactical Air Command, NATO's Joint Air Forces in the area of the Baltic straits include the 41st and 52nd air squadrons of the FRG's Air Force (Husum and Lech air bases), which have 40 Alfa Jet light assault aircraft and 36 RF-4E tactical reconnaissance aircraft, as well as two battalions of Improved Hawk antiaircraft guided missiles (48 launchers).

For effective centralized control, the air defense forces and facilities of Norway and Denmark have been included in the Northern Zone of NATO's Joint Air Defense System in Europe. Its operational center is at Kolsos. Organizationally, it consists of the Norwegian and Danish air defense zones. The Norwegian zone, with the control center at Kolsos, is divided up into two sectors: the northern and the southern (the border between them is parallel to 60° 30' north latitude), while the Danish sector (Karup) has one sector (Vedbek).

The foreign military press states that there are around 60 interceptors, 60 Nike-Hercules and Improved Hawk antiaircraft guided missile launchers and several antiaircraft artillery batteries operationally subordinate to the commander of the Northern Air Defense Zone. In addition, two West German battalions of Improved Hawk antiaircraft guided missiles (48 launchers), which are organizationally a part of NATO's Central Air Defense Zone, can also be used by the command element of NATO's Joint Armed Forces in the NE TMO.

In the opinion of the NATO leaders, the bloc's ground forces in the NE TMO have a limited combat capability. As a result, they will require extensive air support for operations in the theater, especially in Northern Norway, which the air grouping located in the region will not always be able to provide. It is therefore planned to reinforce them with a transfer of part of the aircraft from NATO's so-called mobile forces.

Combat Training: in order to work out questions pertaining to the combat employment of units and subunits of NATO's Joint Air Forces in the NE TMO, the command element of that aggressive imperialist bloc systematically organizes and conducts joint exercises and maneuvers there, involving the air, ground and naval forces of the member nations, as well as special air and air defense exercises. The main ones are (Wintex), Autumn Forge, Express and Cold Winter (Figure 4).

Questions of switching the air forces and air defense forces from a peacetime to a war footing, assessing the air situation and repelling an air attack, as well as carrying out strikes in interaction with aircraft from U.S. aircraft carriers and military aircraft of certain other NATO nations, against main targets located inside the USSR and other nations of the socialist commonwealth, which are within the so-called zone of responsibility of the main command element of NATO's Joint Armed Forces in this theater of military operations, are worked out in the daily activities and the exercises.

In the process of preparing the air units and subunits, a great deal of attention is given to joint operations with naval forces of the bloc's nations for setting ashore naval landing groups, blockading the Baltic straits and conducting naval operations in the Norwegian and North seas, as well as in the North Atlantic. Along with carrying out missions involved in providing air support for the ground and naval forces, the tactical fighters have also been used for combating air targets and for conducting aerial reconnaissance.

The foreign press states that the aircraft crews have made very active use of low and minimum altitudes for striking at ground and sea targets, and have practiced night operations with the simultaneous suppression of enemy radio-electronic warfare facilities.

It is the opinion of Western military experts that the measures carried out by the NATO command as part of the operational and combat training basically provide air force personnel with an adequately high level of training for the successful performance of their missions.

Development Prospects: Denmark and Norway's air units are continuing to be provided with the new F-16 tactical fighters for purposes of increasing the combat capabilities of the air grouping in the NE TMO. It is also planned to deploy several subunits of Improved Hawk antiaircraft guided missiles in Denmark and Norway to supplement existing ones.

Plans for developing the air and air defense forces in this theater of military operations provide for further improving the system of control of the active means of the Northern Air Defense Zone by replacing obsolete radar facilities, modernizing communication lines and installing additional equipment at control centers to make it possible to operate jointly with the long-range radar spotting (DRLO) and AWACS control system, which is based on the E-3A aircraft.

The radioelectronic equipment on the DRLO and control aircraft makes it possible to detect and track heavy aircraft (bombers) at great altitudes at distances of up to 700 kilometers and at low altitudes, up to 400 kilometers, and tactical fighters at corresponding ranges of 450 and 320 kilometers. This makes it possible to overlap the air space zone not covered by fixed radar stations of NATO's NADGE ground air defense system. In addition, should the latter's control facilities break down, the aircraft system would be able to provide for control of the active air defense means.

The development of a basing site for the E-3A aircraft is presently being completed at Ertan Airfield in Norway. It is planned to use the facility for refueling those aircraft and providing for their maintenance and minor repairs.

In addition, it is planned to modernize seven radar sites located in Norway and Denmark for purposes of linking the AWACS system and the ground facilities.

It is the opinion of Western experts that all of the measures carried out by NATO's military leadership in the NE TMO will significantly enhance the combat capability of the bloc's Joint Air Forces in this theater for accomplishing the missions set for them.

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## NAVAL FORCES

### DEVELOPMENT OF SHIP-BOARD AUTOMATED CONTROL SYSTEMS

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 84 (signed to press 10 Oct 84) pp 63-67

[Article by Capt 2nd Rank B. Poyarkov: "The Direction for the Development of Ship-Board Automated Control Systems"]

[Text] Foreign military experts have studied the level of development of naval forces and equipment achieved at the present time and concluded the organization and conduct of combat operations at sea in the modern situation require increased centralization of control. This applies not only to the command centers of the naval forces, from where the fleets and formations are directed, but also to individual ships, on which control of the weapons and technical equipment has the main role.

Centralization is a positive feature from the standpoint of the functioning of any complex system. The higher the level of centralization, the more controllable is the system. In reality, however, the implementation of centralized control is complicated, mainly by the fact that it is difficult to provide the necessary quality and reliability. The more units it embraces, the more information arrives at the ship's combat information post (BIP). What kind of decisions are arrived at and consequently, the quality of control, depend upon the capacity for processing the necessary amount of information within the set periods of time.

Automation equipment on a ship makes it possible to considerably increase the flow of information to be processed, but only within certain limits, since the capability of some of it and the quantity on board are limited. The foreign experts plan to increase the flow not so much by perfecting the data processing equipment, as by making optimal use of it.

The reliability of a centralized control system on a ship depends entirely upon the degree of vulnerability of the combat information post. The entire system breaks down when it stops functioning. An incident involving the guided missile cruiser Warden of the U.S. Navy is an example of this. During the period of American imperialism's aggression in Vietnam (1972) an unauthorized launching of a Shrike airborne anti-radar missile was carried out against it from an American plane. When it exploded above the ship, fragments (it contained 23 kilograms of explosives) actually passed through the aluminum superstructure, where the combat information post with the automation equipment was located. The ship's operational efficiency was lost entirely for 30 minutes. Steps taken by the crew restored it only to a level of 40 percent.

The important control facilities and subsystems on a ship are believed to be very difficult to protect. The compartments housing them have begun to be armored again in foreign forces in recent years, but this involves considerable extra cost.

According to articles published in the Western press, ship-board automatic control systems (ASU) have been developed up to now in accordance with the organizational structure of ship control. This means that its main control facilities and subsystems have been provided with electronic computers as their cost, weight and size have been reduced. Several independent automatic control systems have been created on a ship as a result. These includes systems for assessing the tactical situation and issuing target information (a combat information control system, which services mainly the combat information post); a system for controlling the antiaircraft and anti-ship weapons (which supports the weapons control post of the missile and artillery fire control division); and a fire control system for the antiaircraft missile system, the artillery pieces and so forth (which provides support for the firing of the individual weapons system). These include specialized electronic computers performing tasks for their own subsystem or control element. They are linked together to make it possible to exchange summarized information with higher levels and to obtain essential information from lower ones. This approach has made it relatively simple to automate the ship's individual subsystems and functional elements and to develop and use the software.

In the opinion of the foreign experts, however, this system has major deficiencies, primarily the imperfect organization of interaction among the components of the automatic control system. For example, any two devices or instruments on a ship must be linked with at least two cables to exchange information. This means that a large number of cable lines of communication are required for the complex devices and mechanisms to function (around 50 for an artillery piece and several hundred for a radar station). Approximately 240 kilometers of copper cable is layed for the normal functioning of the electrical and electronic equipment on a standard guided missile destroyer, almost 180 kilometers (75 percent) of which is used for information lines. Outlays for the electrical installation account for a considerable part of the cost of the entire ship as a result. Furthermore, it is difficult to keep a reserve supply of even vitally important cable lines as a result of their great weight, and the intactness of waterproof bulkheads is destroyed by running multiple cable lines through them.

The large scale and the dynamic nature of possible combat operations at sea and the large-scale employment of diverse forces and facilities create a situation in which the information circulating in the ship's various subsystems and control units at the same time may differ considerably in quantity. The capacity of the electronic computers is calculated for the maximum information flow intensity, however. Since periods of peak information load are relatively rare, however, the electronic computers are not loaded to capacity most of the time. That is, there is a significant excess of capacity. This results in an unjustifiably high cost for ship-board automatic control systems. In addition, the computing capacity of an individual system is limited by the capacity of one or several of the electronic computers contained in it. This makes it difficult to build up the combat and technical capacity on the ship in the process of its vital functioning cycle and generally limits the capability for the simultaneous processing of data--in case of an enemy attack with massed weapons, for example.



Interaction among the ship's independent control systems is effected mainly with subordination from top to bottom: more intensively from the BIUS [combat information control system] to the automatic control system for the weapons system, and less intensively in the reverse sequence. When an automatic control system at a higher level breaks down, this can seriously disrupt the information exchange process.

In the opinion of Western experts, the existing basis for building ship-board automatic control systems is in conflict not only with the criteria of economic and technical effectiveness, but also with certain demands made of the tactical control systems. An intensive search is therefore being made abroad for more effective principles based on the latest achievements of scientific and technical progress.

One promising idea consists in retaining the existing ship control structure, while altering the distribution of the technical equipment so as to provide effective centralized servicing for all the control subsystems and units, regardless of their place in the ship's combat organization and their importance for the conduct of combat operations.

It is proposed that a computer system with bus coupling (VS with ShOV) be used as the technical basis for the new principle. It makes it possible to combine a large number of electronic computers, terminals, situation display and other equipment (500 or more information sources and receivers) into a single ship-board system, a general ship-board automatic control system, in order to effectively distribute the common equipment, computer, program and informational resources among the many consumers. It is planned to have functional and territorial decentralization in the computer system with bus coupling. The objective of the former is to simplify the system by breaking down its complex functions into subsystems, functional blocks, circuits and so forth, which will be carried out by individual microcomputers and microprocessors, while the objective of the second involves the spatial distribution of microcomputers on the ship.

Any computer system with bus coupling has three main parts--main buses (MSh), switching and processing components. Their linkage pattern forms the system's topological structure, possible variations of which are shown in Fig. 1 [graphics not reproduced].

The main bus is the common communication line. It is used for effecting the information exchange among all the components linked together in the ship-board automatic control system. It is proposed that an intertwined pair or a coaxial cable be used as the main bus, in which an operating speed of 1 to 10 megabytes per second is achieved by multiplexing successively transmitted signals.

The switching component is a specialized microprocessor, which provides access to the main bus for transmitting (or receiving) data. It also performs the function of linking the consumer's equipment with the bus.

The processing component is a processor which performs the data processing and controls resource use and interaction among the processes in the automatic control system.

The advantage of this type of systems lies in the fact that they can be provided with a larger computing capacity made up of the capacities of the individual electronic computers (there may be a fairly large number of them on a ship). The developers of the SHINPADS general-ship automatic control system (Canadian Navy) developed on the basis of such a system, for example, propose that no less than 100 minicomputers and microcomputers and several hundred primary microprocessors built into various pieces of equipment be used on a standard guided missile frigate.

A general ship-board automatic control system based on a computer system with bus coupling should have a high level of functional reliability. And in fact, if an automatic control system has dozens of electronic computers, the computing capacity of which is accessible to each of the system's consumers, the breakdown of one or even several of them will not halt the functioning of the ship-board control units or subsystems, since their functioning can be assured by redistributing the capacities of the remaining computers.

Computer systems of this type make it possible to create data banks with a capacity which cannot be achieved by means of a single central electronic computer. The data files are distributed among all the electronic computers, and the data in one of them is accessible to any other.

The foreign experts believe that it is possible to achieve the optimal distribution of available programs within the computer system with bus coupling. In the first place, there is no need to maintain a library of all the computer system's programs in each electronic computer, since a needed program can be obtained from another computer. In the second place, the electronic computers can be specialized for the performance of a specific group of tasks. It makes no difference to the consumer which of them performs his task. It is important only that the task be performed.

General ship-board automatic control systems can be used on any class of ship, since, practically, the arrangement of a computer system with bus coupling does not depend upon the ship's combat organizational structure, the number or composition of the subsystems, combat posts or crews. Their flexibility lies in the fact that they can easily be modernized while the ship continues to function, and the building up of computing capacities and the enlargement of capabilities is done without fundamentally restructuring the entire system, as is ordinarily the case. In addition, it is possible to rapidly alter the structure in case the equipment malfunctions or is damaged in combat and put out of action, in case of a change in the tactical situation, or for some other reason. In the case of a massed air attack, for example, when the load on the data processing equipment is drastically increased for air defense purposes, the system's computing capacity can be automatically redistributed by reducing it for the ship's subsystems and control units which are carrying a smaller load or are less important from the standpoint of the battle, thereby avoiding an overload.

Figure 2 shows a diagram of the arrangement of an existing ship-board automatic control system with centralized data processing by means of a single electronic computer (the situation is not fundamentally altered, when several electronic computers are added for processing data in the subsystems and the central computer continues to control them for the entire system). Information exchange among the individual subsystems and control units is effected in a "station to station" pattern.

The new system developed by a number of firms for setting up automatic control systems for various classes of ships is shown in Fig. 3. It provides for distributed data processing, or topological and functional decentralization, as well as for a certain degree of decentralization of control of resource utilization and interaction among the processes in the system. An automatic control system can provide centralized servicing of all control units and subunits, regardless of their rank in the ship's combat organizational structure. This situation is illustrated in Fig. 4, which depicts a flowchart of the SHINPADS general ship-board automatic control system developed by the Sperry Univac company. The main combat and technical equipment linked in the chart on the basis of common tasks are regarded as general ship-board resources, from which the required functional circuits can be rapidly formed in accordance with the tasks of the moment, the combat situation and other factors. From this standpoint the ship is acquiring a fundamentally new capability for adaptive reaction to changes in the combat situation in real time.

The direction we have discussed for the development of ship-board automatic control systems creates the prerequisites for achieving the maximum degree of centralization in the control of the ship and its combat and technical equipment, since the command element can use any unit or subsystem at any time to intervene in the control process, to report decisions in a form convenient for subordinates at the different levels and to constantly monitor their performance, as well as to obtain information with any degree of detail. Control efficiency and timeliness are enhanced by drawing upon a considerable part of the system's computing capacity to perform the more difficult and urgent tasks and for transmitting the most important data simultaneously to all users of the automatic control system.

A high level of survivability is achieved for the automatic control system by means of territorial disbursement (over the entire ship) of the computer equipment, by the multiple duplication and armoring of the main bus, as well as by separating the latter spatially by laying it in the best protected locations on the ship (along the keel, for example). In addition, the duplicating of the main bus (four or five times) increases the width of the signal handling band and the transmission speed.

And so, the Western military experts maintain that general ship-board automatic control systems using computer systems with bus coupling can now be regarded as an adequately effective means of resolving the discrepancy between the degree of centralization and the quality and reliability of control. The servicing of the main command posts and the BIP with a computer system consisting of several dozen microcomputers creates the conditions necessary for the timely and quality performance of tasks involved in the combat maneuvering of the ship, employment of the weapons, the maintaining of optimal operating modes for the technical equipment, and so forth, while the territorial distribution of the electronic computers and the creation of multiple reserves for the main bus assures the automatic control system's stable operation during enemy attacks.

The foreign press states that the advantages of this system of organizing the automated processing of data on a ship are still theoretical, since general ship-board automatic control systems using computer systems with bus coupling are only beginning to be developed. It is the opinion of foreign experts that another 7 to 10 years will be required to complete them, during which time it will be

necessary to resolve a number of complex technical, mathematical, organizational and other problems. First among these is the development of a main bus in which the data transmission speed will provide for an effective exchange of information between the electronic computer and other users of the automatic control system. The topological structure of the computer system is determined by the general demand made of it--that the operating speed of the main bus must be adequate for the normal functioning of the main types of combat and technical equipment on the ship.

It has been determined from studies made in the NATO nations that the operating speed of the main bus for a standard guided missile frigate must be at least two-three megabytes per second when all of the users are provided with their own primary data processing equipment. A shortcoming of main buses made of an intertwined pair or a coaxial cable is the limited width of the signal carrying band, which does not exceed several dozen megahertz'. This does not permit the transmission of a number of wideband signals (the video pulses from a radar station or a SONAR installation, for example). It is believed that several hundred diverse video signals will be active, in addition to the control and monitoring signals, in the informational exchange of a general ship-board automatic control system on a standard guided missile destroyer and that a signal carrying band of several thousand megahertz' will be required to transmit them. This can only be achieved by using fibre-optical cable, which will also make it possible to improve other features of the main bus.

The foreign press has underscored the fact that the following problems will have to be resolved in the course of realizing the new principle: standardization and unification of the ship-board data processing and display equipment, the development of standardized combining devices making it possible to link the diverse equipment of the users with the main bus, the development of standardized algorithms for transmitting data based on unified military standards within the NATO bloc, and the development of software for computer systems with bus coupling, which must make maximum use of the programs for existing systems.

In the opinion of the Western experts, the implementation of this direction for the development of ship-board automatic control systems will proceed as the features of the main bus are improved and the above-listed problems are resolved. This, in turn, should result in the development of a combat ship characterized by a high level of survivability, an adequate combination of equipment and automation of the control processes, adaptability to changes in the surrounding situation and an increased level of productive use in the vital functioning process.

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## SPECIAL TROOPS

### LT GEN STOLYAROV ON RR TROOPS' ROLE IN BAM'S COMPLETION

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 20, Oct 84 pp 34-40

[Article by Lt Gen Stolyarov, member of the Military Council and chief of the Political Directorate of Railway Troops: "A Route of Courage, a School of Indoctrination"]

[Excerpts] Ten years ago the short but much-embracing word "BAM" resounded throughout the world. It rapidly became a part of our life, a symbol of the Soviet people's labor heroism, particularly that of the youth and soldiers in the Soviet Army.

The team of workers building the Baykal-Amur Main Railroad Line recently finished laying the main track and opened the entire line to train traffic a year ahead of schedule. The completion of the BAM has created conditions conducive to the accomplishment of the task defined in the Main Directions for the Economic and Social Development of the USSR, approved at the 26th CPSU Congress--to initiate the extensive economic development of the zone adjacent to the Baykal-Amur Main Railroad Line. The BAM will accelerate the development of production forces in Siberia and the Far East and make it possible to draw the extensive natural resources into economic circulation.

The railroad troops have also made a worthy contribution to the construction of BAM. The "Main Line of the Century" has been a real school of labor and moral indoctrination, a school of courage, for them.

The decision of the CPSU Central Committee and the Soviet Government to enlist railroad troops for the construction of one of the most complicated and difficult sections of the main line--the eastern part, stretching 1,470 kilometers from Tynda to Komsomol'sk-na-Amure--was received by the communists and the personnel as an assignment of honor and responsibility from the homeland.

Today, it can be said with complete justification that participation in this construction project was a serious test for the railroad troops. BAM required of them, great exertion of physical and moral effort, great skill, initiative and creativity, organization and discipline.

Veterans on the construction project recall with excitement and pride the fall of 1974, when the first teams of trailblazers made their way through to the designated areas, led by experienced officers on helicopters, tracked sled trains and cross-country vehicles, even on foot, in order to determine precisely where to build the temporary towns, how to haul in the people and deliver freight. The first construction workers soon set out for the area. The transporting of subunits to Alonka, Dipkun, Vosporukhan, Gerbi and many other points went down in the history of the construction project as one of the most difficult jobs. Ahead lay many, many more, no less complicated.

BAM is rightly referred to as a route of courage. Its construction was carried out under the most difficult of climatic conditions. Temperatures dropped to 50-60 degrees below freezing in the winter there. The line was layed over tayga, hills, (mari) and turbulent rivers. The railroad troops and transportation construction workers had to cross such large water barriers as the Amur, Bureya, Selendzha and the Zeyskoye reservoir. The passage through the Dusse-Alin'skiy Tunnel, which was built back in the 40's and was solidly "sealed off" with ice, was a difficult test. The struggle with the Bureya River, which had gone on a rampage because of unexpected flooding and almost swept away a 620-meter temporary bridge, was something for our servicemen to remember. The railroad troops passed many other tests as well.

At the beginning of this year, socialist competition was actively initiated on an extensive basis on the project for the early opening of the entire main line to train traffic. The railroad troops finished laying the main track one and a half years ahead of schedule, on the eve of the Victory celebration, and readied the Tynda-Komsomol'sk-na-Amure section for through traffic.

The CPSU Central Committee, the USSR Minister of Defense and the chief of the Main Political Directorate of the Soviet Army and Navy congratulated the railroad troops and all those who had helped build the Eastern Section of BAM on that success. The greetings from the CPSU Central Committee state that this labor success is a specific contribution to the implementation of decisions adopted at the 26th CPSU Congress on enhancing the effectiveness of capital investments and accelerating the development of national rail transport, that this great labor victory was achieved as a result of the unselfish labor of the railroad troops, who are making their contribution to the strengthening of the homeland's economic might, of all the teams of builders and the sponsoring organizations of Union and autonomous republics, krays, oblasts and cities, of the young men and women who have joined the construction project of the century at the appeal of the Komsomol.

At a meeting dedicated to the event, which was held at the Crossing imeni Hero of the Soviet Union V.T. Miroshnichenko, the site where the "Golden Link" of the Eastern Section was layed, the railroad troops assured the CPSU Central Committee that they would achieve new successes in the concluding phase of the mainline's construction and would continue to be in the vanguard of the socialist competition for the successful fulfillment of assignments for 1984 and for the 11th Five-Year Plan as a whole. Experience has shown that our fighting-men firmly keep their word.

Since the beginning of construction on the Eastern Section of the Baykal-Amur Main Railroad Line, the railroad troops together with the collectives of sponsoring organizations of Union and autonomous republics, krays and oblasts, have performed a considerable amount of work. More than 200 million cubic meters of rock has been spread, around 1200 kilometers of roads have been built alongside the track, and 1,780 kilometers of railroad line, including 1,470 kilometers of the mainline, have been laid. A new technology has been developed and mastered for organizing the work in the difficult situations of permafrost and roadless areas, and for building the dirt bed, civil engineering works, the overhead structures for the line, housing, service and technical buildings, and cultural and personal service facilities.

As impressive as the results of the BAM decade and those of the current year are, however, they cannot be reduced merely to a quantity of kilometers and cubic meters. The important thing is that the people are growing along with BAM, and the commanders and political workers, specialists and engineers have been acquiring skill and experience. The military collectives have gained strength, and the soldiers have matured and been toughened. The saying, "We are building BAM, and BAM is raising us." is not merely words. The unusual conditions under which the great construction project is being carried out, a sense of participating in a national cause, and pride in the trust given to them have created a special moral climate in the military collectives, which is favorably affecting the indoctrination of the young people. Our best subunits on the BAM are distinguished by solidarity, friendship, a good fighting spirit and good morale. We can say with certainty today that the servicemen on the BAM have honorably passed the rigorous test.

The successes achieved in the construction of BAM were made possible by the vigorous and purposeful party-political work performed by commanders, political organs, party and Komsomol organizations. The specific mainline construction tasks stemming from requirements set by the CPSU Central Committee and the USSR Council of Ministers were discussed at meetings of the party and Komsomol aktiv, in all the primary party and Komsomol organizations. The characteristics of the next phases in the laying of the route and the construction of service facilities were thoroughly discussed, and specific dates for turning over the facilities were defined at assemblies and in seminars. Special attention was devoted to the preparation and indoctrination of specialists in the leading occupations, to the effective and quality performance of the construction, the skillful use of the equipment and the conservation of materials and fuel. Constant concern was shown for meeting the material and technical needs of the personnel and the families of the servicemen.

For the railroad troops BAM has been more than just a school of construction under special conditions and our most important project. The political organs, party and Komsomol organizations on the BAM have acquired essential experience in organizing ideological and mass political work measuring up to the great tasks and the scale of the national construction project.

The grand scale of the project, the enormous volumes of work and the tight schedule required drastically raising the technical level of the railway construction and the engineers' quest, the adoption of progressive designs and

advanced technology, and efficient use of the modern equipment. The decade which has passed has produced numerous examples of this. Bold engineering calculations provided the basis for building the 620-meter combination bridge across the Bureya River in temperatures 40-50 degrees below freezing. The initiative and creativity of the communists-and-engineers made it possible to considerably reduce the amount of time required to clear the ice from the Dusse-Alin'skiy Tunnel and to work out the excavation of millions of cubic meters of earth. Among the outstanding comrades, I would mention particularly officers N. Kozhin, A. Belozarov and A. Tabakov.

Socialist competition, that powerful accelerator of our advance, has served as an effective means of motivating the personnel to accomplish the assigned tasks and of developing steadfastness and courage in the people. The military council, political organs, party and Komsomol organizations are focusing the competition on the successful accomplishment of production assignments, the enhancement of production effectiveness and the quality of the construction work, the adoption of advanced labor organization methods, and the reduction of time periods and the cost of the construction work. The railroad troops responded enthusiastically to the initiative of the outstanding production collectives, which launched a campaign to increase labor productivity by one percent and reduce basic construction costs by half a percent over and above the figures specified in the plan.

The daily labor of the BAM workers is generating some interesting initiatives and is distinguished by creativity and inspiration. Such slogans as "The Annual Mandatory Quota--Ahead of Schedule!" and "For the BAM Projects--the Komsomol Emblem of Quality!", and the campaign to achieve work traffic for the train as rapidly as possible and for the early release of the sections for permanent operation were marked by real youth enthusiasm and a desire to achieve labor records.

The party organization of which Major B. Sitarskiy is a member is an example of this. When the unit personnel were ordered to accelerate the linking of the railway sections and to lay them ahead of schedule on the remaining stages of BAM's Eastern Section ahead of schedule, the communists discussed their tasks in detail at a party meeting and outlined specific steps to successfully accomplish them. Captain A. Panov, senior engineer and member of the CPSU, and Captain V. Smirnov, a political worker with an engineering education, were assigned the task of assuring that the section assembly line operated without interruption. They studied the situation with respect to the connecting of the sections at the site and spotted unutilized reserves. At the suggestion of the communists, the gondolas carrying the ties and the flatcars with the rails were moved closer to the section assembly line, which made it possible to reduce unloading time and make more efficient use of the hoisting equipment. Previously, the finished sections had first been stacked and then loaded onto special couplings and sent to the site where they were to be layed, whereas they are now fed from the section assembly line onto a flatcar and then drawn onto couplings. A total of 3 hours of time was saved in the process.

The accomplishment of the tasks set forth in the CPSU Central Committee's decree "On the Further Improvement of Party Supervision of the Komsomol and the Enhancement of its Role in the Communist Indoctrination of the Youth" made the party and Komsomol organizations even more active in their resolution of practical problems occurring during the construction of the line.



The BAM railroad troops recently came up with an initiative launching socialist competition with the slogan: "For the 40th Anniversary of the Soviet People's Victory in the Great Patriotic War of 1941-1945--40 Weeks of Shock Labor!". Unanimously supporting the initiative, Privates I. Uteshev and Sh. Ayupov, excavator operators, Junior Sergeant K. Adambayev and Private First Class B. Karzhanov, line-service workers, Private I. Gabidullin, geodetic surveyor, Private S. Aliyev, dump truck operator, Private V. Ivanov, bulldozer operator, and servicemen in other fields have unanimously taken up the initiative and constantly exceed their shift quotas.

The work of the BAM railroad troops has been given a high rating by the party and the government. Thousands of railroad troops, blue- and white-collar workers have been awarded the medal "For Construction of the Baykal-Amur Main Line," more than 200 of them have received state awards, 14 of the young officers have been awarded Lenin Komsomol prizes, and officers S. Pal'chuk, G. Kogat'ko and V. Kupriyanov have been awarded the great title Hero of Socialist Labor.

Commanders and political workers, party and Komsomol organizations use diverse forms of mass agitation work for disseminating the experience of the best troops and informing the collectives of each other's affairs, and use technical propaganda means for "writing" the chronicle of the great construction project.

The BAM Komsomol members have many glorious deeds to their credit. They account for more than 80 percent of the construction workers. Every third one of them is outstanding in the combat and political training, every fourth one has received awards from the Komsomol Central Committee, and the Komsomol organizations headed by young communists and officers Ye. Mamedov and S. Morozov have been awarded Challenge Red Banners of the Komsomol Central Committee. The movement among Komsomol members and young soldiers, "I Am the Master of the Construction Project," on the BAM project has taken on new force every year. Profound devotion to the cause, pride in their occupation, a preparedness and the ability to perform any task, even the most difficult, persistence in mastering the equipment and skills, loyalty to military comradeship, and mutual assistance--these are typical features of the young patriots, which represent 70 of our nation's nationalities.

...The mastery of the Baykal-Amur Main Railway Line continues. Despite extremely difficult climatic conditions, a high level of seismic activity and a multitude of rivers large and small, on which there is frequent flooding with the water level rising 7-8 meters, the transportation workers are already hauling freight over a significant link of the route, delivering Neryungri and Chekdomyn coal and timber from the Central, Eastern and Western BAM sections to the consumers, and structural elements, materials, equipment and machinery for the builders of the main line. The railway has already carried a total of more than 40 million tons of freight. The national economy will gain even more from the transportation of freight for the builders now, following the laying of the "Golden Link," since all three divisions of the Baykal-Amur Railway--Urgal, Tynda and Severobaykal'sk--will now finally be linked by a single track.

Participation in the construction of BAM is a glorious page in the history of the railroad troops. The high rating given the selfless labor of those participating in the construction of BAM by the Soviet people and the CPSU is inspiring

the railroad troops to perform more glorious deeds for the sake of further building up the homeland's economic and defense strength.

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DOSA AF

MAJ GEN SHARASHENIDZE ON PRE-DRAFT EDUCATION IN GEORGIA

Tbilisi ZARYA VOSTOKA in Russian 22 Nov 84 p 3

[Article by Maj Gen Levan Sharashenidze, military commissar of the Georgian SSR: "The Fatherland's True Sons"]

[Text] Speaking at a meeting with the leaders of the youth organizations of socialist countries, Comrade K.U. Chernenko stressed in particular the responsibility of today's youth and of those who are faced with developing everything which encompasses the revolutionary zeal and sincere enthusiasm of the founders of the socialist endeavor.

The Communist Party challenges us to be always on the alert and to safeguard and increase socialism's gains. Today Lenin's legacy sounds even more special: We must accompany our steps towards peace with efforts at greater military readiness.

The exacerbation of the ideological struggle in the international arena and the increased danger of war obligate us to accomplish the missions of military-patriotic work better than we have and with greater energy. This work is aimed at developing in the Soviet people, primarily the young, deep ideological conviction, determination and a readiness to defend the Motherland.

In considering the specifics of the current international situation, military commissariats, under the leadership of party and Soviet agencies, have begun to pay more attention to the training of our young citizens in military skills and to the shaping of an awareness of their constitutional duty: the defense of our socialist Fatherland. In Adzharia, for example, months and weeks of special observation of defense-related mass work are occurring. In Abkhazia the number of universities and clubs dealing with military and patriotic problems is growing. In South Osetia 24-hour reading rooms have been opened for young men of pre-draft and draft age. In Tbilisi, Kutaisi, Gori, Poti, and in Akhaltsikhskiy, Karel'skiy, Makharadzevskiy, Khobskiy, Tskhakayevskiy, and other rayons Draftees' Day is celebrated with rich content and emotion.

The Leninskiy, Pervomayskiy, and Gldanskiy rayon military commissariats of the city of Tbilisi and Vanskiy, Zestafonskiy, Marneul'skiy, Rustavskiy,

Tkibul'skiy, Khelvachaur'skiy, Tsulukidzev'skiy, and Tskhaltub'skiy rayon and municipal military commissariats have all scored impressive results in socialist competition for better preparing young people for military service and organizing induction procedures. Here a good training and material base has been set up, medical and hygiene measures are being taken for the draftees, and much is being done for the youths' ideological tempering and military-patriotic education.

Nowadays when the country is actively preparing to celebrate the 40th anniversary of victory, military commissariats together with the republic's social organizations are striving to enhance comprehensively the heroic-patriotic and international education of our young people. A further boost to their effort was added by the decrees of the CPSU Central Committee on the preparations for the 40th anniversary of victory and on the improvement of the party's leadership of the Komsomol and by the recommendations made by Comrade K.U. Chernenko in speeches at the All-Army Conference of Komsomol organization secretaries and at a meeting with the leaders of the youth organizations of socialist countries. The participation of young people in the All-Union Komsomol and the Young People's Tour of landmarks of revolutionary, military and labor glory is expanding the tradition of enrolling in labor collectives heroes who did not return from the war and of meeting production norms for them. Young Komsomol members are sponsoring war invalids and the families of fallen soldiers. As small streams come together and create mighty rivers, so too do all the efforts of our young people's educators realized in specific deeds create in the hearts of our young men an anxious and unshakeable feeling of love for the Soviet Motherland, a pride in the peoples' accomplishments and a confidence in this peoples's future.

The association of young people with revolutionary and military traditions and the preparations for our youths' service in the Armed Forces begin already in their first days at school. Schools, tekhnikums, institutions of higher education, and educational institutions in the vocational and technical system are performing this important patriotic work in the light of the recently adopted school reform with a great sense of responsibility. The majority of these institutions have established museums, rooms and corners dedicated to Soviet military glory; these facilities have become centers of the heroic-patriotic education of young people.

The pedagogical collectives of secondary general education schools Nos 37, 64, and 96 of Tbilisi, schools No 10 in Sukhumi, No 122 in Batumi, No 2 in Tskhinvali, No 13 in Kutaisi, No 11 in Rustavi, and No 8 in Telavi are conducting the most aggressive efforts in this area. The graduates of these schools serve with dignity in the army and navy. The Russian language is a powerful medium in the ideological-political, military-patriotic, international and moral education of our young people. There is no language barrier for many Georgian youths going away to serve in the Soviet Army. They master Russian in their childhood.

The Georgian SSR Ministry of Education attaches great significance to the teaching of Russian to young men of draft age. Special courses have been set up in schools, workplaces and military commissariats to develop the conversational skills of those who are weak in it. Textbooks for draftees

have also been developed and published. The republic's radio and television transmit and telecast special programs in Russian. In the last 2 years, the number of draftees weak in Russian has decreased by a factor of more than 3.

Labor training and education play an important role in the preparation of young school-age people for service in the Armed Forces. Thousands of graduates from secondary schools are professional vehicle and tractor drivers. This is a most important factor in the enhancement of pre-draft military-technical preparation.

A great deal of work is done in the military-professional orientation of young people. Eighty universities offering military studies and 150 future officers culbs are active in cities and rayon centers. Military commissars and veterans of the Armed Forces meet with the parents of young men along with the young men themselves who have expressed a desire to enroll in military educational institutions. The well wishes of the elders strengthen the belief of young people in the correctness of the choice they have made.

Several years ago there was a gathering for the first time of candidates of military schools in the republic capital. Party, Soviet and Komsomol leaders, along with veterans and even students and instructors invited from various schools throughout the country spoke at the gathering. The young men, dreaming about a profession as an officer, visited the Tbilisi Higher Artillery Red-Banner Command School imeni 26 Bakinskikh kommissarov and familiarized themselves with military life and the students' course conditions. Since then gatherings are held annually, and it must be said that they provide good results. In 1984 more than 780 young men enrolled in military schools; more than half of them were native Georgians. Every year a good complement from our republic begins its duty in the military. These young men have a high level of education, culture, and technological literacy. In the last 5 years the number of draftees having a higher, general, and special secondary education has increased by 10 percent; every third one of them possesses a military-technical specialty. All of this permits the draftees to serve in all branches and services and to successfully master military matters. More than half of the future soldiers have worked in industry, transportation, and construction before induction; a third of them have worked in agriculture, while the rest were employees and students. The profound social transformations in the life of our society were reflected in the draftees' mental attitudes. An inextinguishable love for the Motherland burns in the hearts of the young patriots; they consider it a great honor to be in the ranks of the armed defenders of the October Revolution's country and perform their difficult military service with dignity. Thus, the Georgian Ramaz Chelidze, the Azerbaydzhan Nazin Mamedov, and the Russian Oleg Voloshin, all drafted from our republic, perform their military duty in the international crew of Belorussian Sergeant Viktor Ilinsk excellently. M. Akhalaya, M. Devidze, S. Manukyan, M. Mekhtiyev, D. Chavlershvili and many others have successfully mastered their military requirements.

The newspaper KRASNAYA ZVEZDA once published a story about the exploits of soldiers who were exemplarily performing their international duty. One of our fellow-countrymen, Georgi Berdnishvili, was among the bold spirits. He was

decorated with the Order of the Red Star for his courageous deed. The deed of the soldier-scout is now widely known by the young people of our republic.

More than 200 natives of our republic who served in the Armed Forces were awarded combat orders and medals. This testifies to the high moral and political qualities of our young people and to the fact that our republic is preparing dignified replacements for the Armed Forces.

Of course, all this pleases us, but it does not relieve us of our obligation to evaluate critically what has been accomplished, to reflect upon unsolved problems, and to search for reserves to advance the cause. Interest in strengthening the country's defense capability requires us to step up military-patriotic work among all the age categories of young people. Meanwhile, people are still performing this job in the old fashion way in certain cities and rayons of the republic, especially in Akhalakskiy, Gegechgorskiy, Dushetskiy, Dmanisskiy, Kazbegskiy, Kobuletskiy, Ochamchirskiy, Tianetskiy, Tsalkskiy, Tsalendzhikhskiy, Tsiteltskaroyevskiy, and Chkhorotskuskoy rayons. The committee's remarks contained much that was interesting and useful; at the same time, negative factors, shortcomings and omissions were most sharply criticized. The main point, however, is the need to achieve a universal understanding of the fact that indifference and formalism are intolerable in this very important area.

Comrade K. U. Chernenko remarked in his speech at the All-Army Conference of Komsomol organization secretaries: "Military service today, understandably, is not an easy thing. It demands unremitting effort, systematic training, strong tempering, psychological perseverance and total discipline."

In light of this, problems of the psychological preparation of pre-draft age youths for the transition from civilian life to the army ranks and the correct perception by young people of strict military discipline and military structure, which, as we know, is significantly different from civilian conditions, are becoming acute, in our view.

It is necessary to pay more attention in the military-patriotic education of young people to their physical and military preparation for service in the Armed Forces. One thing that V. I. Lenin bequeathed to the Soviet people was his advice that: "One should prepare for military service in the correct manner." This advice takes on particular significance in today's explosive situation.

Seeing the young men off to military service is treated as a major holiday in the republic. Ceremonial gatherings take place on this day throughout the republic's cities and villages. At these gatherings, young men hear from their elders instructions to serve with dignity, hold high the honor of the Soviet Man, strengthen the defensive might of the country with selfless military efforts and expand the traditions of glory and courage.

The train cars with the draftees move off, the farewell toots of the locomotives fall silent. Military garrisons, tank parks and navy vessels await the young men; they will mature in their service, their characters will develop and they will acquire the military expertise necessary to reliably defend the Fatherland.

DOSA AF

## USE OF SIMULATORS IN MILITARY SPECIALIST TRAINING

Moscow SOVETSKIY PATRIOT in Russian 19 Dec 84 p 3

[Article by Reserve Colonel S. Koziryev: "Skill Cannot Be Acquired Without The Use Of Simulators"]

[Text] Experience shows that the extensive use of modern technical training aids during exercises noticeably intensifies the process of passing and receiving various kinds of information; it permits an enhancement of the quality of specialist training for the Armed Forces. Additionally, technical training aids contribute to the life and usability of training vehicles, launching sets, engines, and the economy of fuel and lubrication materials. Technical training aids permit time economization and the imposition of quick supervision (self-supervision) to check the correctness of operations by future soldiers, while they conduct these operations, especially in a complicated situation.

It is just for this reason that the instructors and experts from the majority of DOSAAF schools are constantly striving to improve available technical training aids and produce through their own efforts and with the materials immediately on hand, all kinds of simulators, operating benches and models and automated systems for result feedback. Many original ideas with regard to training equipment have surfaced, for example, in the Kharkov, Lvov, Odessa, Moscow and Sverdlovsk radio engineering schools of the Defense Community.

Efficiency experts and inventors are focusing particular attention on the manufacture of simulators. These are special pieces of equipment which are models of actual equipment - radio sets, generators, etc. - which is not always available or expedient for training purposes. Simulators are designed to form practical habits in the students for working with actual equipment through repeated exercises. After they have mastered the most basic operations, the students begin to work under difficult conditions such as jamming and darkness as they trouble shoot and eliminate problems. People are correct when they say that skill cannot be acquired without the use of simulators.

At the Lvov DOSAAF Radio Engineering School, the rationalizers S. Smolyan, O. Kulikov and others have developed simulators of the radio sets being studied and have already utilized them in the training process for a long time now. These simulators can be utilized for both training and practical exercises. The students develop skills on them for the correct use of actual equipment, they learn how to trouble shoot and eliminate problems. The students are permitted

to work with operational radio sets only after they have acquired the necessary expertise.

At the school, the students have a special bench simulator for the execution of the simplest missions in discovering and eliminating the simplest problems in radio equipment. Thirty-two different defects can be "planted" in the simulator. The bench simulator can be programed to work three routines: "training", "exercise" and "control." Simulators being utilized here in the study of measuring instruments, radio set power sources and others also deserve our attention.

Technical training aids are also used gladly in exercises at the Ryazan Workers Engineering School. For the purpose of illustrating the material being taught, the instructors and experts there developed a large number of slides and slide films. Senior expert of production training, A. Andreyev, has made several interesting innovations. Among them, simulators for working out the operations in rebuilding transmitters and measuring the output of radar stations. Both of these simulators were awarded certificates of the USSR Exhibition of Economic Achievements at an All-Union Exhibit of Amateur Radio Builders.

In the last 2 years, the Pushkin Radio Engineering School has put into practical use more than 20 valuable and innovative suggestions aimed at the improvement of training equipment. For example, such technical training aids as a portable teaching machine and an input unit for catching the most probable defects in radio sets have earned a special place at the school.

Probably no single class at the Sverdlovsk Radio Engineering School takes place now without the use of such visual aids as films and slides. A classroom has been equipped for programed training. Television, as a training aid, is becoming more and more a fact of life. The pedagogical collectives of DOSAAF schools are planning to utilize modern technical training aids extensively in all routines.

At first glance, it could seem that the problem has been solved and the mastering of diversified equipment in the learning process is moving along favorably. In actuality, however, many difficulties are still being encountered.

The recommendations of the USSR DOSAAF Central Committee's Learning and Methodology Center are only slowly being implemented. These recommendations deal with the utilization of training aids. In some places, work is being done to improve training equipment without considering advanced methodology and modern battlefield requirements. There are today many instructors and experts who poorly know how best to use the opportunities of technical aids in this or that situation where a particular subject is being taught.

I believe that simultaneously along with the improvement of available equipment it is also necessary to structure the steps taken in the preparation of specialists. Additionally, we must thoroughly discuss these steps at pedagogical meetings jointly with military commissariat officials, and more aggressively disseminate the advanced experience acquired.

The well-thought out utilization of technical training aids and the effective mastering of the knowledge gained are not separate concepts. We see in them a reliable vehicle for solving the central problem of DOSAAF schools, namely the enhancement of the quality preparation of specialists for the Armed Forces.